

human-mouse model described here will allow in vivo testing of such gene therapy approaches.

L9 ANSWER 65 OF 88 MEDLINE

AN 94266960 MEDLINE

DN 94266960

TI Primary mouse myoblast purification, characterization, and transplantation for cell-mediated gene therapy.

AU Rando T A; Blau H M

CS Department of Molecular Pharmacology, Stanford University School of Medicine, California 94305-5332..

NC HD18179 (NICHHD)

SO JOURNAL OF CELL BIOLOGY, (1994 Jun) 125 (6) 1275-87.

Journal code: HMV. ISSN: 0021-9525.

United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 199409

AB The transplantation of cultured myoblasts into mature skeletal muscle is the basis for a new therapeutic approach to muscle and non-muscle diseases: myoblast-mediated gene therapy.

The success of myoblast transplantation for correction of intrinsic muscle

defects depends on the fusion of implanted cells with host myofibers.

Previous studies in mice have been problematic because they have involved transplantation of established myogenic cell lines or primary muscle cultures. Both of these cell populations have disadvantages: myogenic

cell

lines are tumorigenic, and primary cultures contain a substantial percentage of non-myogenic cells which will not fuse

to host fibers. Furthermore, for both cell populations, immune

suppression

of the host has been necessary for long-term retention of transplanted cells. To overcome these difficulties, we developed novel culture conditions that permit the purification of mouse myoblasts from primary cultures. Both enriched and clonal populations of primary myoblasts were characterized in assays of cell proliferation and differentiation. Primary myoblasts were dependent on added bFGF for growth and retained the ability to differentiate even after 30 population doublings. The fate of the pure myoblast populations after transplantation was monitored by labeling the cells with the marker

enzyme

beta-galactosidase (beta-gal) using retroviral mediated gene transfer. Within five days of transplantation into muscle of mature mice, primary myoblasts had fused with host muscle cells to form hybrid myofibers. To examine the immunobiology of primary myoblasts, we compared transplanted cells in syngeneic and allogeneic hosts. Even without immune suppression, the hybrid fibers persisted with continued beta-gal expression up to six months after myoblast transplantation in syngeneic hosts. In allogeneic hosts, the implanted cells were completely eliminated within three weeks. To assess tumorigenicity, primary myoblasts and myoblasts from the C2 myogenic cell line were transplanted into immunodeficient mice. Only C2 myoblasts formed tumors. The ease of isolation, growth, and transfection of primary mouse myoblasts under the conditions described here expand the opportunities to study muscle cell growth and differentiation using myoblasts from normal as well as mutant strains of mice. The properties of these cells after transplantation--the stability of resulting hybrid myofibers without immune suppression, the persistence of transgene expression, and the lack of tumorigenicity--suggest that

studies

TI Trigger point injection: a neglected modality in the treatment of TMJ  
 dysfunction.  
 AU Padamsee M; Mehta N; White G E  
 SO JOURNAL OF PEDODONTICS, (1987 Fall) 12 (1) 72-92.  
 Journal code: JMK. ISSN: 0145-5508.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Dental Journals; Dental  
 EM 198807

L40 ANSWER 65 OF 73 MEDLINE  
 AN 88167724 MEDLINE  
 DN 88167724  
 TI Musculoskeletal pain among general dentists.  
 AU Shugars D; Miller D; Williams D; Fishburne C; Strickland D  
 SO GENERAL DENTISTRY, (1987 Jul-Aug) 35 (4) 272-6.  
 Journal code: FL0. ISSN: 0363-6771.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Dental Journals; Dental  
 EM 198807

L40 ANSWER 66 OF 73 MEDLINE  
 AN 86152525 MEDLINE  
 DN 86152525  
 TI [Combined analgesics in myalgia of the neck. A double-blind comparison of  
 paracetamol and orphenadrine (Norgesic) and paracetamol and codeine  
 (Paralgin forte) in general practice].  
 Kombinasjonsanalgetika ved nakkemyalgi. En dobbeltblind sammenligning av  
 paracetamol + orfenadrincitrat (Norgesic) og paracetamol + kodein  
 (Paralgin forte) i almenpraksis.  
 AU Hoivik H O; Gundersen R; Osmundsen K  
 SO TIDSSKRIFT FOR DEN NORSKE LÆGEFORENING, (1986 Jan 20) 106 (2) 126-8.  
 Journal code: VRV. ISSN: 0029-2001.  
 CY Norway  
 DT (CLINICAL TRIAL)  
 (CONTROLLED CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 LA Norwegian  
 EM 198606

L40 ANSWER 67 OF 73 MEDLINE  
 AN 85217003 MEDLINE  
 DN 85217003  
 TI Geophysical variables and behavior: XXVII. Magnetic necklace: its  
 therapeutic effectiveness on neck and shoulder pain: 2.  
 Psychological assessment.  
 AU Lin J C; Singleton G W; Schaeffer J N; Hong C Z; Meltzer R J  
 SO PSYCHOLOGICAL REPORTS, (1985 Apr) 56 (2) 639-49.  
 Journal code: QF6. ISSN: 0033-2941.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 EM 198509

L40 ANSWER 68 OF 73 MEDLINE  
 AN 85118603 MEDLINE  
 DN 85118603  
 TI Effectiveness of acupuncture and physiotherapy on myogenic headache: a  
 comparative study.  
 AU Ahonen E; Hakumaki M; Mahlamaki S; Partanen J; Riekkinen P; Sivenius J

DT (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)  
LA Danish  
EM 199110

L40 ANSWER 52 OF 73 MEDLINE  
AN 91296122 MEDLINE  
DN 91296122  
TI Cervical dystonia: clinical findings and associated movement disorders.  
AU Jankovic J; Leder S; Warner D; Schwartz K  
CS Parkinson's Disease Center, Baylor College of Medicine, Houston, TX  
77030..  
SO NEUROLOGY, (1991 Jul) 41 (7) 1088-91.  
Journal code: NZO. ISSN: 0028-3878.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 199110

L40 ANSWER 53 OF 73 MEDLINE  
AN 91267362 MEDLINE  
DN 91267362  
TI Role of trigger points in the management of head, neck, and face  
pain.  
AU Mackley R J  
SO FUNCTIONAL ORTHODONTIST, (1990 Sep-Oct) 7 (5) 4-14.  
Journal code: FUO. ISSN: 8756-3150.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Dental Journals; Dental  
EM 199109

L40 ANSWER 54 OF 73 MEDLINE  
AN 91175517 MEDLINE  
DN 91175517  
TI Postoperative pain relief in children from the parascalene  
injection technique.  
AU McNeely J K; Hoffman G M; Eckert J E  
CS Children's Hospital of Wisconsin, Medical College of Wisconsin,  
Milwaukee..  
Adom's SO REGIONAL ANESTHESIA, (1991 Jan-Feb) 16 (1) 20-2.  
Journal code: AYZ. ISSN: 0146-521X.  
CY United States  
DT (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)  
LA English  
FS Priority Journals  
EM 199107

L40 ANSWER 55 OF 73 MEDLINE  
AN 91125034 MEDLINE  
DN 91125034  
TI Electromyography of masticatory muscles in craniomandibular disorders.  
AU Cooper B C; Cooper D L; Lucente F E  
CS Department of Otolaryngology--Head and Neck Surgery, New York Medical  
College, New York.  
SO LARYNGOSCOPE, (1991 Feb) 101 (2) 150-7.  
Journal code: LlW. ISSN: 0023-852X.  
CY United States

TI Treatment of trapezius paralysis.  
AU Bigliani L U; Perez-Sanz J R; Wolfe I N  
SO JOURNAL OF BONE AND JOINT SURGERY. AMERICAN VOLUME, (1985 Jul) 67 (6)  
871-7.

Journal code: HJR. ISSN: 0021-9355.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 198511

=> s (neck muscle)

66482 NECK  
674 NECKS  
66833 NECK  
(NECK OR NECKS)  
285746 MUSCLE  
173598 MUSCLES  
358752 MUSCLE  
(MUSCLE OR MUSCLES)  
L39 2430 (NECK MUSCLE)  
(NECK(W)MUSCLE)

=> s 131 and 139

L40 73 L31 AND L39

=> d 50-73

L40 ANSWER 50 OF 73 MEDLINE  
AN 92009442 MEDLINE  
DN 92009442  
TI Cervicogenic headache. The differentiation from common migraine. An  
overview.  
AU Sjaastad O; Bovim G  
CS Department of Neurology, Regionsykehuset i Trondheim, Trondheim  
University  
Hospital, Norway..

SO FUNCTIONAL NEUROLOGY, (1991 Apr-Jun) 6 (2) 93-100. Ref: 20  
Journal code: FUN. ISSN: 0393-5264.  
CY Italy  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 199201

L40 ANSWER 51 OF 73 MEDLINE  
AN 91306269 MEDLINE  
DN 91306269  
TI [Low energy laser treatment--effect in localized fibromyalgia in the neck  
and shoulder regions].  
Lav-energi laserbehandling--effekt ved lokaliseret fibromyalgi i nakke-  
og  
skulderregioner.  
AU Thorsen H; Gam A N; Jensen H; Hojmark L; Wahlstrom L  
CS Frederiksberg Hospital, medicinsk blok, reumatologisk afdeling C..  
SO UGESKRIFT FOR LAEGER, (1991 Jun 17) 153 (25) 1801-4.  
Journal code: WM8. ISSN: 0041-5782.  
CY Denmark



AN 92358360 MEDLINE  
 DN 92358360  
 TI Circulating human or canine factor IX from retrovirally transduced  
 primary  
 myoblasts and established myoblast cell lines grafted into murine  
 skeletal muscle.  
 AU Roman M; Axelrod J H; Dai Y; Naviaux R K; Friedmann T; Verma I M  
 CS Department of Pediatrics, University of California School of Medicine,  
 San  
 Diego, La Jolla 92093-0634..  
 NC MH18398-05 (NIMH)  
 CHD 20034 (NCI)  
 CA 44360  
 SO SOMATIC CELL AND MOLECULAR GENETICS, (1992 May) 18 (3) 247-58.  
 Journal code: UY2. ISSN: 0740-7750.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199211  
 AB We have used retroviral vectors to introduce human or canine factor IX  
 cDNAs into cultured primary murine and canine myoblasts and into  
 the established murine myoblast cell line C2C12. In all cases, the stably  
 infected cells produced biologically active factor IX in culture and  
 secreted detectable amounts into the culture medium both before and after  
 differentiation of the cells into myotubes. Myoblasts  
 and differentiated myotubes are therefore capable of performing  
 all the posttranslational modifications of the coagulation factor  
 required  
 for biological activity. We have grafted the genetically modified  
 myoblasts into skeletal muscles of nude mice and have detected  
 stable levels of circulating human factor IX for up to two months after  
 grafting. We propose that grafting genetically modified primary  
 myoblasts or established myoblast cell lines into skeletal muscle  
 may represent a useful approach to gene therapy for a  
 variety of genetic diseases, including intrinsic muscle disease and  
 defects in circulating proteins as in the hemophilias.

*Claim 1*

L9 ANSWER 82 OF 88 MEDLINE  
 AN 92357077 MEDLINE  
 DN 92357077  
 TI Increasing the proliferative capacity of muscular dystrophy  
 myoblasts.  
 AU Yang J; Seelig M; Rayner S; Bredesen D E  
 CS CEL, Reed Neurological Research Center, Los Angeles, California  
 90024-1769..  
 NC NS 27812-01 (NINDS)  
 SO MUSCLE AND NERVE, (1992 Aug) 15 (8) 941-8.  
 Journal code: NN9. ISSN: 0148-639X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199211  
 AB Temperature-sensitive immortalized neural cells may be utilized to  
 produce  
 genetically engineered neural transplants. We have used a similar  
 approach  
 with mdx myoblasts. Control and mdx myoblasts were  
 immortalized with a recombinant retrovirus that effects the expression of  
 a temperature-sensitive simian virus 40 large T antigen. The resultant  
 cells divide indefinitely at 34 degrees C, but differentiate at 38  
 degrees

DN 94039488  
 TI Antinociceptive effects in the formalin and capsaicin tests after intrathecal administration of **substance P** analogues in mice.  
 AU Sakurada T; Katsumata K; Manome Y; Tan-No K; Sakurada S; Kisara K; Ohba M  
 CS Department of Pharmacology, Tohoku College of Pharmacy, Sendai, Japan..  
 SO EUROPEAN JOURNAL OF PHARMACOLOGY, (1993 Sep 21) 242 (1) 47-52.  
 Journal code: EN6. ISSN: 0014-2999.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199402

L32 ANSWER 80 OF 146 MEDLINE  
 AN 94023203 MEDLINE  
 DN 94023203  
 TI Effect of CP-96,345 a non-peptide **substance P** antagonist, capsaicin, resiniferatoxin and ruthenium red on nociception.  
 AU Szolcsanyi J; Nagy J; Petho G  
 CS Department of Pharmacology, University Medical School of Pecs, Hungary.  
 SO REGULATORY PEPTIDES, (1993 Jul 2) 46 (1-2) 437-9.  
 Journal code: RBB. ISSN: 0167-0115.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199401

L32 ANSWER 81 OF 146 MEDLINE  
 AN 94023202 MEDLINE  
 DN 94023202  
 TI Non-specific activity of (+/-)CP-96,345 in models of **pain** and inflammation.  
 AU Nagahisa A; Asai R; Kanai Y; Murase A; Tsuchiya-Nakagaki M; Nakagaki T; Shieh T C; Taniguchi K  
 CS Department of Medicinal Biology, Pfizer Inc., Aichi, Japan.  
 SO REGULATORY PEPTIDES, (1993 Jul 2) 46 (1-2) 433-6.  
 Journal code: RBB. ISSN: 0167-0115.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199401

L32 ANSWER 82 OF 146 MEDLINE  
 AN 94007093 MEDLINE  
 DN 94007093  
 TI Influence of 5.7-dihydroxytryptamine on electro-acupuncture analgesia and **substance P** level in central nervous system of the arthralgic rats.  
 AU Cui R; Zhao F; Ma C; Tian Y; Cai H; Zhu L  
 CS Institute of Acupuncture and Moxibustion, China Academy of Traditional Chinese Medicine, Beijing..  
 SO CHEN TZU YEN CHIU ACUPUNCTURE RESEARCH, (1992) 17 (3) 183-5.  
 Journal code: DBA. ISSN: 1000-0607.  
 CY China  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA Chinese  
 EM 199401

L32 ANSWER 83 OF 146 MEDLINE  
 AN 93378093 MEDLINE

Journal code: B5L. ISSN: 0006-8993.  
CY Netherlands  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198412

L32 ANSWER 133 OF 146 MEDLINE  
AN 84271033 MEDLINE  
DN 84271033  
TI Changes in the concentration of somatostatin and **substance**  
P in the cerebrospinal fluid following injection of alcohol into  
the pituitary gland.  
AU Conlon J M; Lahuerta J; Miles J; Lipton S  
SO NEUROPEPTIDES, (1984 May) 4 (3) 227-36.  
Journal code: NZC. ISSN: 0143-4179.  
CY SCOTLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198411

L32 ANSWER 134 OF 146 MEDLINE  
AN 84196448 MEDLINE  
DN 84196448  
TI [Polypeptides and antagonists].  
Polypeptides et antagonistes.  
AU Regoli D  
SO SEMAINE DES HOPITAUX, (1984 Mar 29) 60 (14) 987-1002. Ref: 120  
Journal code: ULD. ISSN: 0037-1777.  
CY France  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
LA French  
FS Priority Journals  
EM 198408

L32 ANSWER 135 OF 146 MEDLINE  
AN 84115222 MEDLINE  
DN 84115222  
TI Analgesic mechanism of epidural electric stimulation of the spinal  
column--changes in the concentrations of beta-endorphin, **substance**  
P, catecholamines and cyclic nucleotides in the cerebrospinal  
fluid.  
AU Shimoji K; Matsuki M; Naito E; Yosida N; Satomi N; Endo H; Maruyama Y;  
Hashiba M  
SO MASUI. JAPANESE JOURNAL OF ANESTHESIOLOGY, (1983 Aug) 32 (8) 914-23.  
Journal code: KHR. ISSN: 0021-4892.  
CY Japan  
DT Journal; Article; (JOURNAL ARTICLE)  
LA Japanese  
EM 198405

L32 ANSWER 136 OF 146 MEDLINE  
AN 84081028 MEDLINE  
DN 84081028  
TI Neurological advances in the relief of **pain**.  
AU Miles J  
SO BRITISH JOURNAL OF HOSPITAL MEDICINE, (1983 Nov) 30 (5) 348, 350, 353.  
Ref: 35  
Journal code: BZ5. ISSN: 0007-1064.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)

[electro-acupuncture, TES, TENMS (or TEMS), TENS and electro-magnetic field stimulation with or without drug field] for pain, neuromuscular skeletal problems, and circulatory disturbances.

AU Omura Y  
 CS Heart Disease Research Foundation, Brooklyn, N.Y. 11201..  
 SO ACUPUNCTURE AND ELECTRO-THERAPEUTICS RESEARCH, (1987) 12 (3-4) 201-25.  
 Ref: 20  
 Journal code: 2GR. ISSN: 0360-1293.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 198807

L32 ANSWER 117 OF 146 MEDLINE  
 AN 88169549 MEDLINE  
 DN 88169549  
 TI Time course of clinical effects of carbamazepine: implications for mechanisms of action.  
 AU Post R M  
 CS Biological Psychiatry Branch, National Institute of Mental Health, Bethesda, Md 20892.  
 SO JOURNAL OF CLINICAL PSYCHIATRY, (1988 Apr) 49 Suppl 35-48. Ref: 116  
 Journal code: HIC. ISSN: 0160-6689.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 198807

L32 ANSWER 118 OF 146 MEDLINE  
 AN 87280919 MEDLINE  
 DN 87280919  
 TI Treatment of chronic postherpetic neuralgia with topical capsaicin. A preliminary study.  
 AU Bernstein J E; Bickers D R; Dahl M V; Roshal J Y  
 SO JOURNAL OF THE AMERICAN ACADEMY OF DERMATOLOGY, (1987 Jul) 17 (1) 93-6.  
 Journal code: HVG. ISSN: 0190-9622.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198711

L32 ANSWER 119 OF 146 MEDLINE  
 AN 87189869 MEDLINE  
 DN 87189869  
 TI The management of pain.  
 AU Lasagna L  
 SO DRUGS, (1986) 32 Suppl 4 1-7. Ref: 27  
 Journal code: EC2. ISSN: 0012-6667.  
 CY New Zealand  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 LA English  
 FS Priority Journals  
 EM 198708

L32 ANSWER 120 OF 146 MEDLINE

RMI 28

a serotonin receptor agonist.  
AU Eide P K; Hole K  
CS Department of Physiology, University of Bergen, Norway..  
SO JOURNAL OF NEURAL TRANSMISSION, (1989) 77 (1) 1-10.  
Journal code: JAJ. ISSN: 0300-9564.  
CY Austria  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198910

L28 ANSWER 25 OF 31 MEDLINE

AN 89290870 MEDLINE

DN 89290870

TI Substance P increases lymphocyte traffic and lymph flow through  
peripheral lymph nodes of sheep.

AU Moore T C; Lami J L; Spruck C H

CS Department of Surgery, UCLA School of Medicine, Torrance, California  
90509.

NC DK 37895 (NIDDK)

SO IMMUNOLOGY, (1989 May) 67 (1) 109-14.

Journal code: GH7. ISSN: 0019-2805.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 198910

L28 ANSWER 26 OF 31 MEDLINE

AN 89009615 MEDLINE

DN 89009615

TI Anti-idiotypic antibodies as a tool for cytochemical identification of  
substance P receptors in the central nervous system.

AU Conrath M; Couraud J Y; Pradelles P

CS Departement de Cytologie, UA 1199, CNRS, Paris, France..

SO JOURNAL OF HISTOCHEMISTRY AND CYTOCHEMISTRY, (1988 Nov) 36 (11) 1397-401.  
Journal code: ID2. ISSN: 0022-1554.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 198901

L28 ANSWER 27 OF 31 MEDLINE

AN 85268377 MEDLINE

DN 85268377

TI Characterization of the hyperalgesic effect induced by intrathecal  
injection of substance P.

AU Matsumura H; Sakurada T; Hara A; Sakurada S; Kisara K

~~SO NEUROPHARMACOLOGY, (1985 May) 24 (5) 421-6.~~

~~Journal code: NZB. ISSN: 0028-3908.~~

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198511

L28 ANSWER 28 OF 31 MEDLINE

AN 85152430 MEDLINE

DN 85152430

TI Differential effects of central angiotensin II and substance P on

LA English  
FS Priority Journals  
EM 199502

L16 ANSWER 89 OF 182 MEDLINE

AN 95041454 MEDLINE

DN 95041454

TI Differential antinociceptive effects of sendide, a NK1-receptor antagonist, and morphine in the capsaicin test.

AU Sakurada T; Yogo H; Katsumata K; Tan-No K; Sakurada S; Kisara K; Ohba M

CS Department of Pharmacology, Tohoku College of Pharmacy, Sendai, Japan..

SO BRAIN RESEARCH, (1994 Jun 27) 649 (1-2) 319-22.

Journal code: B5L. ISSN: 0006-8993.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199502

L16 ANSWER 90 OF 182 MEDLINE

AN 94373595 MEDLINE

DN 94373595

TI [Which way for the administration of alpha 2-adrenergic agents to obtain the best analgesia?].

Par quelle voie faut-il administrer les alpha 2-adrenergiques pour obtenir

la meilleure analgesie?.

AU Bernard J M; Kick O; Bonnet F

CS Departement d'Anesthesie-Reanimation Chirurgicale, Hotel-Dieu, CHR, Nantes..

SO CAHIERS D ANESTHESIOLOGIE, (1994) 42 (2) 223-8.

Journal code: CBV. ISSN: 0007-7625.

CY France

DT Journal; Article; (JOURNAL ARTICLE)

LA French

FS Priority Journals

EM 199412

L16 ANSWER 91 OF 182 MEDLINE

AN 94352574 MEDLINE

DN 94352574

TI Activity at phencyclidine and mu opioid sites mediates the hyperalgesic and antinociceptive properties of the N-terminus of substance P in a model of visceral pain.

AU Goettl V M; Larson A A

CS Department of Veterinary PathoBiology, University of Minnesota, St Paul 55108..

NC ADAMHA T32 DA07234 (NIDA)

DA04090 (NIDA)

DA04190 (NIDA)

+

SO NEUROSCIENCE, (1994 May) 60 (2) 375-82.

Journal code: NZR. ISSN: 0306-4522.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199412

L16 ANSWER 92 OF 182 MEDLINE

AN 94291885 MEDLINE

DN 94291885

TI Involvement of neurokinin 1 and 2 receptors in viscerosensitive

AU Qin L; Chavin K D; Ding Y; Woodward J E; Favaro J P; Lin J; Bromberg J S  
 CS Department of Surgery, Medical University of South Carolina,  
 Charleston..  
 SO ANNALS OF SURGERY, (1994 Oct) 220 (4) 508-18; discussion 518-9.  
 Journal code: 67S. ISSN: 0003-4932.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
 EM 199501

L34 ANSWER 68 OF 93 MEDLINE  
 AN 94368751 MEDLINE  
 DN 94368751  
 TI **Myoblasts** fail to stimulate T cells but induce tolerance.  
 AU Warrens A N; Zhang J Y; Sidhu S; Watt D J; Lombardi G; Sewry C A; Lechler  
 R I  
 CS Department of Immunology, Royal Postgraduate Medical School, Hammersmith  
 Hospital, London, UK.  
 SO INTERNATIONAL IMMUNOLOGY, (1994 Jun) 6 (6) 847-53.  
 Journal code: AY5. ISSN: 0953-8178.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199412

L34 ANSWER 69 OF 93 MEDLINE  
 AN 94333827 MEDLINE  
 DN 94333827  
 TI Expression vectors encoding human growth hormone (hGH) controlled by  
 human  
 muscle-specific promoters: prospects for regulated production of hGH  
 delivered by **myoblast** transfer or intravenous injection.  
 AU Dahler A; Wade R P; Muscat G E; Waters M J  
 CS Physiology and Pharmacology Department, University of Queensland, St.  
 Lucia, Australia.  
 SO GENE, (1994 Aug 5) 145 (2) 305-10.  
 Journal code: FOP. ISSN: 0378-1119.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199411

L34 ANSWER 70 OF 93 MEDLINE  
 AN 94266960 MEDLINE  
 DN 94266960  
 TI Primary mouse **myoblast** purification, characterization, and  
 transplantation for cell-mediated **gene therapy**.  
 AU Rando T A; Blau H M  
 CS Department of Molecular Pharmacology, Stanford University School of  
 Medicine, California 94305-5332..  
 NC HD18179 (NICHD)  
 SO JOURNAL OF CELL BIOLOGY, (1994 Jun) 125 (6) 1275-87.  
 Journal code: HMV. ISSN: 0021-9525.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199409

L34 ANSWER 71 OF 93 MEDLINE

AN 94255488 MEDLINE  
 DN 94255488  
 TI In vivo production of human factor VII in mice after intrasplenic  
 implantation of primary fibroblasts transfected by receptor-mediated,  
 adenovirus-augmented gene delivery.  
 AU Zatloukal K; Cotten M; Berger M; Schmidt W; Wagner E; Birnstiel M L  
 CS Research Institute of Molecular Pathology, I.M.P. Vienna, Austria..  
 SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF  
 AMERICA, (1994 May 24) 91 (11) 5148-52.  
 Journal code: PV3. ISSN: 0027-8424.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199409

L34 ANSWER 72 OF 93 MEDLINE  
 AN 94243269 MEDLINE  
 DN 94243269  
 TI Transplantation of adult-derived myoblasts in mice following  
 gene transfer.  
 AU Naffakh N; Pinset C; Montarras D; Pastoret C; Danos O; Heard J M  
 CS Laboratoire Retrovirus et Transfert Genetique, URA CNRS 1157, Paris,  
 France..  
 SO NEUROMUSCULAR DISORDERS, (1993 Sep-Nov) 3 (5-6) 413-7.  
 Journal code: BJS. ISSN: 0960-8966.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199408

L34 ANSWER 73 OF 93 MEDLINE  
 AN 94242819 MEDLINE  
 DN 94242819  
 TI Retroviral vector-mediated gene transfer into human primary myogenic  
 cells  
 leads to expression in muscle fibers in vivo.  
 AU Salvatori G; Ferrari G; Mezzogiorno A; Servidei S; Coletta M; Tonali P;  
 Giavazzi R; Cossu G; Mavilio F  
 CS Institute of Histology, University of Rome La Sapienza, Italy.  
 SO HUMAN GENE THERAPY, (1993 Dec) 4 (6) 713-23.  
 Journal code: A12. ISSN: 1043-0342.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199408

L34 ANSWER 74 OF 93 MEDLINE  
 AN 94232784 MEDLINE  
 DN 94232784  
 TI Gene therapy for lysosomal disorders.  
 AU Naffakh N; Bohl D; Salvetti A; Moullier P; Danos O; Heard J M  
 CS Laboratoire Retrovirus et Transfert Genetique, Institut Pasteur, Paris,  
 France..  
 SO NOUVELLE REVUE FRANCAISE D HEMATOLOGIE, (1994) 36 Suppl 1 S11-6. Ref: 22  
 Journal code: O6S.  
 CY GERMANY: Germany, Federal Republic of  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English



FS Priority Journals  
 EM 199408

L34 ANSWER 75 OF 93 MEDLINE  
 AN 94227539 MEDLINE  
 DN 94227539  
 TI Cultured human muscle cells and respiratory chain deficiencies.  
 AU Herzberg N H; Bolhuis P A; van den Bogert C; Barth P G  
 CS Department of Neurology, University of Amsterdam, The Netherlands..  
 SO NEUROMUSCULAR DISORDERS, (1994 Jan) 4 (1) 3-11. Ref: 106  
 Journal code: BJS. ISSN: 0960-8966.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199408

L34 ANSWER 76 OF 93 MEDLINE  
 AN 94191904 MEDLINE  
 DN 94191904  
 TI Results of a triple blind clinical study of myoblast  
 transplantations without immunosuppressive treatment in young boys with  
 Duchenne muscular dystrophy.  
 AU Tremblay J P; Malouin F; Roy R; Huard J; Bouchard J P; Satoh A; Richards  
 C  
 L  
 CS Laboratoire de Neurobiologie, Hopital de l'Enfant-Jesus, Quebec,  
 Canada..  
 SO CELL TRANSPLANTATION, (1993 Mar-Apr) 2 (2) 99-112.  
 Journal code: B02. ISSN: 0963-6897.  
 CY United States  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199407

L34 ANSWER 77 OF 93 MEDLINE  
 AN 94184374 MEDLINE  
 DN 94184374  
 TI Gene targeting in normal somatic cells: inactivation of the  
 interferon-gamma receptor in myoblasts.  
 AU Arbones M L; Austin H A; Capon D J; Greenburg G  
 CS Cell Genesys Inc., Foster City, California 94404..  
 SO NATURE GENETICS, (1994 Jan) 6 (1) 90-7.  
 Journal code: BRO. ISSN: 1061-4036.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199406

L34 ANSWER 78 OF 93 MEDLINE  
 AN 94094908 MEDLINE  
 DN 94094908  
 TI The effects of fibroblast growth factors in long-term primary culture of  
 dystrophic (mdx) mouse muscle myoblasts.  
 AU Smith J; Schofield P N  
 CS Department of Anatomy, University of Cambridge, United Kingdom..  
 SO EXPERIMENTAL CELL RESEARCH, (1994 Jan) 210 (1) 86-93.  
 Journal code: EPB. ISSN: 0014-4827.

CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199404

L34 ANSWER 79 OF 93 MEDLINE  
 AN 94027265 MEDLINE  
 DN 94027265  
 TI Constitutive and cytokine-induced expression of human leukocyte antigens and cell adhesion molecules by human myotubes.  
 AU Michaelis D; Goebels N; Hohlfeld R  
 CS Department of Neuroimmunology, Max Planck Institute, Martinsried, Germany..  
 SO AMERICAN JOURNAL OF PATHOLOGY, (1993 Oct) 143 (4) 1142-9.  
 Journal code: 3RS. ISSN: 0002-9440.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
 EM 199401

L34 ANSWER 80 OF 93 MEDLINE  
 AN 93392232 MEDLINE  
 DN 93392232  
 TI **Myoblasts** in pattern formation and **gene therapy**.  
 AU Blau H M; Dhawan J; Pavlath G K  
 CS Department of Pharmacology, Stanford University School of Medicine, CA 94305-5332..  
 SO TRENDS IN GENETICS, (1993 Aug) 9 (8) 269-74. Ref: 51  
 Journal code: WEK. ISSN: 0168-9525.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 EM 199312

L34 ANSWER 81 OF 93 MEDLINE  
 AN 93218719 MEDLINE  
 DN 93218719  
 TI Long-term correction of rat model of Parkinson's disease by **gene therapy** [retracted by Wolff JA. In: Nature 1996 Apr 25;380(6576):734] [see comments].  
 CM Comment in: Nature 1993 Apr 1;362(6419):414-5  
 AU Jiao S; Gurevich V; Wolff J A  
 CS Department of Pediatrics, Waisman Center, University of Wisconsin, Madison 53705.  
 SO NATURE, (1993 Apr 1) 362 (6419) 450-3.  
 Journal code: NSC. ISSN: 0028-0836.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 (RETRACTED PUBLICATION)  
 LA English  
 FS Cancer Journals; Priority Journals  
 EM 199307

L34 ANSWER 82 OF 93 MEDLINE  
 AN 93066349 MEDLINE  
 DN 93066349  
 TI **Gene therapy** via primary **myoblasts**:

long-term expression of factor IX protein following transplantation in vivo.

AU Dai Y; Roman M; Naviaux R K; Verma I M  
 CS Salk Institute, Molecular Biology and Virology Laboratory, San Diego, CA 92186-5800.  
 NC MH183P8-05 (NIMH)  
 SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1992 Nov 15) 89 (22) 10892-5.  
 Journal code: PV3. ISSN: 0027-8424.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199302

L34 ANSWER 83 OF 93 MEDLINE  
 AN 93024688 MEDLINE  
 DN 93024688  
 TI **Myoblast** transfer in DMD: problems in the interpretation of efficiency [letter].  
 AU Karpati G; Holland P; Worton R G  
 SO MUSCLE AND NERVE, (1992 Oct) 15 (10) 1209-10.  
 Journal code: NN9. ISSN: 0148-639X.  
 CY United States  
 DT Letter  
 LA English  
 FS Priority Journals  
 EM 199301

L34 ANSWER 84 OF 93 MEDLINE  
 AN 93024680 MEDLINE  
 DN 93024680  
 TI A PCR-based assay for the wild-type dystrophin gene transferred into the mdx mouse.  
 AU Shrager J B; Naji A; Kelly A M; Stedman H H  
 CS Department of Surgery, University of Pennsylvania School of Medicine, Philadelphia 19104..  
 NC AR08177-01 (NIAMS)  
 DK34878 (NIDDK)  
 SO MUSCLE AND NERVE, (1992 Oct) 15 (10) 1133-7.  
 Journal code: NN9. ISSN: 0148-639X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199301

L34 ANSWER 85 OF 93 MEDLINE  
 AN 92358360 MEDLINE  
 DN 92358360  
 TI Circulating human or canine factor IX from retrovirally transduced primary **myoblasts** and established **myoblast** cell lines grafted into murine skeletal muscle.  
 AU Roman M; Axelrod J H; Dai Y; Naviaux R K; Friedmann T; Verma I M  
 CS Department of Pediatrics, University of California School of Medicine, San Diego, La Jolla 92093-0634..  
 NC MH18398-05 (NIMH)  
 CHD 20034 (NCI)  
 CA 44360  
 SO SOMATIC CELL AND MOLECULAR GENETICS, (1992 May) 18 (3) 247-58.  
 Journal code: UY2. ISSN: 0740-7750.

CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199211

L34 ANSWER 86 OF 93 MEDLINE  
 AN 92357077 MEDLINE  
 DN 92357077  
 TI Increasing the proliferative capacity of muscular dystrophy  
 myoblasts.  
 AU Yang J; Seelig M; Rayner S; Bredesen D E  
 CS CEL, Reed Neurological Research Center, Los Angeles, California  
 90024-1769..  
 NC NS 27812-01 (NINDS)  
 SO MUSCLE AND NERVE, (1992 Aug) 15 (8) 941-8.  
 Journal code: NN9. ISSN: 0148-639X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199211

L34 ANSWER 87 OF 93 MEDLINE  
 AN 92319305 MEDLINE  
 DN 92319305  
 TI Report of the MDA Gene Therapy Conference, Tucson,  
 Arizona, September 27-28, 1991.  
 AU Rossiter B J; Stirpe N S; Caskey C T  
 CS Institute for Molecular Genetics, Baylor College of Medicine, Houston,  
 TX.  
 SO NEUROLOGY, (1992 Jul) 42 (7) 1413-8.  
 Journal code: NZ0. ISSN: 0028-3878.  
 CY United States  
 DT Conference; Conference Article; (CONGRESSES)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 199210

L34 ANSWER 88 OF 93 MEDLINE  
 AN 92228784 MEDLINE  
 DN 92228784  
 TI Expression of human factor IX in mice after injection of genetically  
 modified myoblasts.  
 AU Yao S N; Kurachi K  
 CS Department of Human Genetics, University of Michigan Medical School, Ann  
 Arbor 48109-0618.  
 NC HL38644 (NHLBI)  
 P01-DK42718 (NIDDK)  
 NIDDK34933  
 +  
 SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF  
 AMERICA, (1992 Apr 15) 89 (8) 3357-61.  
 Journal code: PV3. ISSN: 0027-8424.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199207

L34 ANSWER 89 OF 93 MEDLINE  
 AN 92073930 MEDLINE  
 DN 92073930

TI Systemic delivery of human growth hormone by injection of genetically engineered **myoblasts** [see comments].  
 CM Comment in: Science 1991 Dec 6;254(5037):1455-6  
 AU Dhawan J; Pan L C; Pavlath G K; Travis M A; Lanctot A M; Blau H M  
 CS Department of Pharmacology, Stanford University School of Medicine, CA 94305..  
 NC AG-09521 (NIA)  
 HD-18179 (NICHD)  
 SO SCIENCE, (1991 Dec 6) 254 (5037) 1509-12.  
 Journal code: UJ7. ISSN: 0036-8075.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199203

L34 ANSWER 90 OF 93 MEDLINE

AN 92073929 MEDLINE

DN 92073929

TI Systemic delivery of recombinant proteins by genetically modified **myoblasts** [see comments].

CM Comment in: Science 1991 Dec 6;254(5037):1455-6

AU Barr E; Leiden J M

CS Howard Hughes Medical Institute, University of Michigan Medical Center, Ann Arbor 48109..

NC 1 P01 DK42718-01 (NIDDK)

SO SCIENCE, (1991 Dec 6) 254 (5037) 1507-9.

Journal code: UJ7. ISSN: 0036-8075.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 199203

L34 ANSWER 91 OF 93 MEDLINE

AN 91096085 MEDLINE

DN 91096085

TI Accelerated age-related decline in replicative life-span of Duchenne muscular dystrophy **myoblasts**: implications for cell and **gene therapy**.

AU Webster C; Blau H M

CS Department of Pharmacology, Stanford University School of Medicine, California 94305-5332..

NC CA 09392 (NCI)

HD18179 (NICHD)

HD20203 (NICHD)

+

SO SOMATIC CELL AND MOLECULAR GENETICS, (1990 Nov) 16 (6) 557-65.

Journal code: UY2. ISSN: 0740-7750.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 199104

L34 ANSWER 92 OF 93 MEDLINE

AN 91063293 MEDLINE

DN 91063293

TI Purification and proliferation of human **myoblasts** isolated with fluorescence activated cell sorting.

AU Blau H M; Webster C; Pavlath G K

CS Department of Pharmacology, Stanford University School of Medicine, CA 94305..

SO ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY, (1990) 280 97-100.  
Journal code: 2LU. ISSN: 0065-2598.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199103

L34 ANSWER 93 OF 93 MEDLINE  
AN 91063261 MEDLINE  
DN 91063261  
TI The DMD gene promoter: a potential role in gene therapy

AU Ray P N; Klamut H J; Worton R G  
CS Genetics Department, Hospital for Sick Children, Toronto, Canada..  
SO ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY, (1990) 280 107-11;  
discussion 111-2. Ref: 10  
Journal code: 2LU. ISSN: 0065-2598.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 199103

=> s (paraspinal muscle)

789 PARASPINAL  
18 PARASPINALS  
799 PARASPINAL  
(PARASPINAL OR PARASPINALS)

285746 MUSCLE  
.173598 MUSCLES  
358752 MUSCLE

(MUSCLE OR MUSCLES)

L35 293 (PARASPINAL MUSCLE)  
(PARASPINAL(W)MUSCLE)

=> d his

(FILE 'HOME' ENTERED AT 12:06:01 ON 11 MAR 1999)

FILE 'MEDLINE' ENTERED AT 12:06:07 ON 11 MAR 1999

L1 14388 S (SUBSTANCE P)  
L2 914806 S (BLOCK? OR INHIBIT?)  
L3 423130 S (RECEPTOR)  
L4 8396 S (GENE THERAPY)  
L5 4498 S L1 AND L3  
L6 0 S L5 AND L4  
L7 1 S L1 AND L4  
L8 148499 S PAIN  
L9 974 S L1 AND L8  
L10 367 S L9 AND L2  
L11 0 S L4 AND L9  
L12 328 S L5 AND L9  
L13 0 S L5 AND L4  
L14 18 S L8 AND L4  
L15 0 S L14 AND L5  
L16 182 S L1 AND L2 AND L3 AND L8  
L17 261115 S PEPTIDE  
L18 1328 S L1 AND L3 AND L2 AND L17

LA English  
FS Priority Journals  
EM 199312

L36 ANSWER 11 OF 18 MEDLINE  
AN 93341531 MEDLINE  
DN 93341531  
TI Significant improvement of stiff-person syndrome after paraspinal  
injection of botulinum toxin A.  
AU Davis D; Jabbari B  
CS Department of Physical Medicine and Rehabilitation, Walter Reed Army  
Medical Center, Washington, DC.  
SO MOVEMENT DISORDERS, (1993 Jul) 8 (3) 371-3.  
Journal code: NIA. ISSN: 0885-3185.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199311

L36 ANSWER 12 OF 18 MEDLINE  
AN 93261605 MEDLINE  
DN 93261605  
TI Nonvasculitic, steroid-responsive mononeuritis multiplex [see comments].  
CM Comment in: Neurology 1994 Jan;44(1):193-4  
Comment in: Neurology 1994 Jan;44(1):194  
AU Logigian E L; Shefner J M; Frosch M P; Kloman A S; Raynor E M; Adelman L  
S; Hollander D  
CS Department of Neurology, Brigham and Women's Hospital, Harvard Medical  
School, Boston, MA..  
SO NEUROLOGY, (1993 May) 43 (5) 879-83. Ref: 26  
Journal code: NZO. ISSN: 0028-3878.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW OF REPORTED CASES)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 199308

L36 ANSWER 13 OF 18 MEDLINE  
AN 93260360 MEDLINE  
DN 93260360  
TI Treatment of multiple lumbar disk herniations in an adolescent athlete  
utilizing flexion distraction and rotational manipulation.  
AU Hession E F; Donald G D  
CS Monmouth College Department of Sports Medicine, West Long Branch, NJ..  
SO JOURNAL OF MANIPULATIVE AND PHYSIOLOGICAL THERAPEUTICS, (1993 Mar-Apr) 16  
(3) 185-92. Ref: 50  
Journal code: IY5. ISSN: 0161-4754.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 199308

L36 ANSWER 14 OF 18 MEDLINE  
AN 93068514 MEDLINE  
DN 93068514  
TI Electromyographic detection of paraspinal muscle  
metastasis. Correlation with magnetic resonance imaging.

AU LaBan M M; Tamler M S; Wang A M; Meerschaert J R  
 CS Department of Physical Medicine and Rehabilitation, William Beaumont  
 Hospital, Royal Oak, Michigan..  
 SO SPINE, (1992 Oct) 17 (10) 1144-7.  
 Journal code: UXK. ISSN: 0362-2436.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199302

L36 ANSWER 15 OF 18 MEDLINE  
 AN 90385360 MEDLINE  
 DN 90385360  
 TI Biofeedback in back muscle strengthening.  
 AU Asfour S S; Khalil T M; Waly S M; Goldberg M L; Rosomoff R S; Rosomoff H  
 L  
 CS Comprehensive Pain and Rehabilitation Center, University of Miami Medical  
 School, Florida..  
 SO SPINE, (1990 Jun) 15 (6) 510-3.  
 Journal code: UXK. ISSN: 0362-2436.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199012

L36 ANSWER 16 OF 18 MEDLINE  
 AN 90278263 MEDLINE  
 DN 90278263  
 TI Bronchogenic carcinoma presenting as neuromusculoskeletal pain  
 [see comments].  
 CM Comment in: J Manipulative Physiol Ther 1991 Mar-Apr;14(3):222-3  
 Comment in: J Manipulative Physiol Ther 1991 Sep;14(7):440-2  
 AU Downs S E  
 SO JOURNAL OF MANIPULATIVE AND PHYSIOLOGICAL THERAPEUTICS, (1990 May) 13 (4)  
 221-4.  
 Journal code: IY5. ISSN: 0161-4754.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199009

L36 ANSWER 17 OF 18 MEDLINE  
 AN 84118433 MEDLINE  
 DN 84118433  
 TI EMG biofeedback used to reduce standing levels of **paraspinal**  
**muscle** tension in chronic low back **pain**.  
 AU Nouwen A  
 SO PAIN, (1983 Dec) 17 (4) 353-60.  
 Journal code: OPF. ISSN: 0304-3959.  
 CY Netherlands  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA English  
 FS Priority Journals  
 EM 198405

L36 ANSWER 18 OF 18 MEDLINE  
 AN 76153950 MEDLINE  
 DN 76153950



TI Investigation of the relation between low back pain and  
 occupation. VII. Neurologic and orthopedic condition.  
 AU Magora A  
 SO SCANDINAVIAN JOURNAL OF REHABILITATION MEDICINE, (1975) 7 (4) 146-51.  
 Journal code: UD3. ISSN: 0036-5505.  
 CY Sweden  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 197607

=> s (levator scapulae)

1632 LEVATOR  
 41 LEVATORS  
 16 LEVATOIRES  
 1669 LEVATOR  
 (LEVATOR OR LEVATORS OR LEVATOIRES)  
 256 SCAPULAE  
 L37 75 (LEVATOR SCAPULAE)  
 (LEVATOR(W) SCAPULAE)

=> d his

(FILE 'HOME' ENTERED AT 12:06:01 ON 11 MAR 1999)

FILE 'MEDLINE' ENTERED AT 12:06:07 ON 11 MAR 1999

L1 14388 S (SUBSTANCE P)  
 L2 914806 S (BLOCK? OR INHIBIT?)  
 L3 423130 S (RECEPTOR)  
 L4 8396 S (GENE THERAPY)  
 L5 4498 S L1 AND L3  
 L6 0 S L5 AND L4  
 L7 1 S L1 AND L4  
 L8 148499 S PAIN  
 L9 974 S L1 AND L8  
 L10 367 S L9 AND L2  
 L11 0 S L4 AND L9  
 L12 328 S L5 AND L9  
 L13 0 S L5 AND L4  
 L14 18 S L8 AND L4  
 L15 0 S L14 AND L5  
 L16 182 S L1 AND L2 AND L3 AND L8  
 L17 261115 S PEPTIDE  
 L18 1328 S L1 AND L3 AND L2 AND L17  
 L19 5509 S L1 AND L2  
 L20 2640 S L19 AND L17  
 L21 644 S (PEPTIDE INHIBITOR)  
 L22 2 S L19 AND L21  
 L23 2 S L1 AND L21  
 L24 479 S (SUBSTANCE P RECEPTOR)  
 L25 0 S L24 AND L21  
 L26 70 S (SUBSTANCE P ANALOG)  
 L27 0 S L24 AND L4  
 L28 31 S L24 AND L8  
 L29 14667 S (L1 OR NK-1)  
 L30 1526195 S THERAPY  
 L31 57789 S L8 AND L30  
 L32 146 S L29 AND L31  
 L33 3720 S MYOBLAST  
 L34 93 S L33 AND L4  
 L35 293 S (PARASPINAL MUSCLE)

DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199105

L40 ANSWER 56 OF 73 MEDLINE  
 AN 91050792 MEDLINE  
 DN 91050792  
 TI The effects of massage in patients with chronic tension headache.  
 AU Puustjarvi K; Airaksinen O; Pontinen P J  
 CS Dept. of Physical Medicine and Rehabilitation, Kuopio University Central Hospital, Finland..  
 SO ACUPUNCTURE AND ELECTRO-THERAPEUTICS RESEARCH, (1990) 15 (2) 159-62.  
 Journal code: 2GR. ISSN: 0360-1293.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199102

L40 ANSWER 57 OF 73 MEDLINE  
 AN 90137277 MEDLINE  
 DN 90137277  
 TI Botulinum toxin injections for cervical dystonia.  
 AU Jankovic J; Schwartz K  
 CS Department of Neurology, Baylor College of Medicine, Houston, TX 77030.  
 SO NEUROLOGY, (1990 Feb) 40 (2) 277-80.  
 Journal code: NZO. ISSN: 0028-3878.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 199005

L40 ANSWER 58 OF 73 MEDLINE  
 AN 90055757 MEDLINE  
 DN 90055757  
 TI Acute torticollis secondary to rupture of the sternocleidomastoid.  
 AU Schuyler-Hacker H; Green R; Wingate L; Sklar J  
 CS New York Hospital, Cornell University Medical Center, New York 10021..  
 SO ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION, (1989 Nov) 70 (12) 851-3.  
 Journal code: 8BK. ISSN: 0003-9993.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 199002

L40 ANSWER 59 OF 73 MEDLINE  
 AN 89351881 MEDLINE  
 DN 89351881  
 TI Computer-generated headache. Brachiocephalgia at first byte.  
 AU LaBan M M; Meerschaert J R  
 CS Department of Physical Medicine and Rehabilitation, William Beaumont Hospital, Royal Oak, Michigan 48072..  
 SO AMERICAN JOURNAL OF PHYSICAL MEDICINE AND REHABILITATION, (1989 Aug) 68 (4) 183-5.  
 Journal code: AJO. ISSN: 0894-9115.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals

EM 198912

L40 ANSWER 60 OF 73 MEDLINE  
 AN 89278796 MEDLINE  
 DN 89278796  
 TI Side effects and complications of cervical epidural steroid injections.  
 AU Cicala R S; Westbrook L; Angel J J  
 SO JOURNAL OF PAIN AND SYMPTOM MANAGEMENT, (1989 Jun) 4 (2) 64-6.  
 Journal code: IJJ. ISSN: 0885-3924.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Nursing Journals; Nursing  
 EM 198909

L40 ANSWER 61 OF 73 MEDLINE  
 AN 89178352 MEDLINE  
 DN 89178352  
 TI The "repetitive strain injury syndrome" is referred pain from  
 the neck [see comments].  
 CM Comment in: J Rheumatol 1989 Jul;16(7):1007  
 AU Smythe H  
 CS University of Toronto, Wellesley Hospital, Canada.  
 SO JOURNAL OF RHEUMATOLOGY, (1988 Nov) 15 (11) 1604-8.  
 Journal code: JWX. ISSN: 0315-162X.  
 CY Canada  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198907

L40 ANSWER 62 OF 73 MEDLINE  
 AN 89068469 MEDLINE  
 DN 89068469  
 TI Short-term effect of two therapeutic methods on myofascial pain  
 and dysfunction of the masticatory system.  
 AU Burgess J A; Sommers E E; Truelove E L; Dworkin S F  
 CS Department of Anesthesia, University of Washington Hospital, Seattle.  
 SO JOURNAL OF PROSTHETIC DENTISTRY, (1988 Nov) 60 (5) 606-10.  
 Journal code: JSV. ISSN: 0022-3913.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Dental Journals  
 EM 198903

L40 ANSWER 63 OF 73 MEDLINE  
 AN 88221642 MEDLINE  
 DN 88221642  
 TI Neck injury sustained during exposure to high-G forces in the F16B.  
 AU Andersen H T  
 CS Institute of Aviation Medicine, Oslo, Norway..  
 SO AVIATION SPACE AND ENVIRONMENTAL MEDICINE, (1988 Apr) 59 (4) 356-8.  
 Journal code: 9JA. ISSN: 0095-6562.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198808

L40 ANSWER 64 OF 73 MEDLINE  
 AN 88172026 MEDLINE  
 DN 88172026

FS Dental Journals; Dental  
EM 198005

L40 ANSWER 73 OF 73 MEDLINE  
AN 70115018 MEDLINE  
DN 70115018

TI [Electromyographic study of the muscular contracture of two neck  
muscles in patients with cervicobrachial pain].  
Studio elettromiografico sulla contrattura muscolare di due muscoli del  
collo in portatori di cervicobrachialgia.

AU Fasoli M; Tessari L

SO ARCHIVIO DI ORTOPEDIA, (1968) 81 (5) 249-56.

Journal code: 84U. ISSN: 0004-0118.

CY Italy

DT Journal; Article; (JOURNAL ARTICLE)

LA Italian

EM 197005

=> s (phe-phe-gly-leu-met)

14139 PHE

57 PHES

14179 PHE

(PHE OR PHES)

14139 PHE

57 PHES

14179 PHE

(PHE OR PHES)

15187 GLY

18312 LEU

28 LEUS

108 LEI

19 LEIS

18416 LEU

(LEU OR LEUS OR LEI OR LEIS)

30273 MET

293 METS

30524 MET

(MET OR METS)

L41 37 (PHE-PHE-GLY-LEU-MET)

(PHE(W) PHE(W) GLY(W) LEU(W) MET)

=> d his

(FILE 'HOME' ENTERED AT 12:06:01 ON 11 MAR 1999)

FILE 'MEDLINE' ENTERED AT 12:06:07 ON 11 MAR 1999

L1 14388 S (SUBSTANCE P)  
L2 914806 S (BLOCK? OR INHIBIT?)  
L3 423130 S (RECEPTOR)  
L4 8396 S (GENE THERAPY)  
L5 4498 S L1 AND L3  
L6 0 S L5 AND L4  
L7 1 S L1 AND L4  
L8 148499 S PAIN  
L9 974 S L1 AND L8  
L10 367 S L9 AND L2  
L11 0 S L4 AND L9  
L12 328 S L5 AND L9  
L13 0 S L5 AND L4  
L14 18 S L8 AND L4  
L15 0 S L14 AND L5

L16 182 S L1 AND L2 AND L3 AND L8  
 L17 261115 S PEPTIDE  
 L18 1328 S L1 AND L3 AND L2 AND L17  
 L19 5509 S L1 AND L2  
 L20 2640 S L19 AND L17  
 L21 644 S (PEPTIDE INHIBITOR)  
 L22 2 S L19 AND L21  
 L23 2 S L1 AND L21  
 L24 479 S (SUBSTANCE P RECEPTOR)  
 L25 0 S L24 AND L21  
 L26 70 S (SUBSTANCE P ANALOG)  
 L27 0 S L24 AND L4  
 L28 31 S L24 AND L8  
 L29 14667 S (L1 OR NK-1)  
 L30 1526195 S THERAPY  
 L31 57789 S L8 AND L30  
 L32 146 S L29 AND L31  
 L33 3720 S MYOBLAST  
 L34 93 S L33 AND L4  
 L35 293 S (PARASPINAL MUSCLE)  
 L36 18 S L31 AND L35  
 L37 75 S (LEVATOR SCAPULAE)  
 L38 4 S L31 AND L37  
 L39 2430 S (NECK MUSCLE)  
 L40 73 S L31 AND L39  
 L41 37 S (PHE-PHE-GLY-LEU-MET)

=> s 124 and 141

L42 1 L24 AND L41

=> d

L42 ANSWER 1 OF 1 MEDLINE  
 AN 85036893 MEDLINE  
 DN 85036893  
 TI A peptidases-resistant glycosylated analogue of substance P-(5-11).  
 Specificity towards **substance P receptors**.  
 AU Poujade C; Lavielle S; Torrens Y; Beaujouan J C; Glowinski J; Marquet A  
 SO NEUROPEPTIDES, (1984 Sep) 4 (5) 361-8.  
 Journal code: NZC. ISSN: 0143-4179.  
 CY SCOTLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198502

=> s 131 and 141

L43 0 L31 AND L41

=> d 141 1-37

L41 ANSWER 1 OF 37 MEDLINE  
 AN 96390883 MEDLINE  
 DN 96390883  
 TI The use of photolabelled peptides to localize the substance-P-binding  
 site  
 in the human neurokinin-1 tachykinin receptor.  
 AU Girault S; Sagan S; Bolbach G; Lavielle S; Chassaing G  
 CS Laboratoire de Chimie Organique Biologique associe au CNRS, Universite

Pierre et Marie Curie, Paris, France.  
SO EUROPEAN JOURNAL OF BIOCHEMISTRY, (1996 Aug 15) 240 (1) 215-22.  
Journal code: EMZ. ISSN: 0014-2956.  
CY GERMANY: Germany, Federal Republic of  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; Cancer Journals  
EM 199701  
EW 19970104

L41 ANSWER 2 OF 37 MEDLINE  
AN 96298235 MEDLINE  
DN 96298235  
TI Topographic analysis of the S7 binding subsite of the tachykinin neurokinin-1 receptor.  
AU Josien H; Convert O; Berlose J P; Sagan S; Brunissen A; Lavielle S; Chassaing G  
CS Laboratoire de Chimie, Organique Biologique, CNRS URA 493, Universite Pierre et Marie Curie, Paris, France.  
SO BIOPOLYMERS, (1996 Aug) 39 (2) 133-47.  
Journal code: A5Z. ISSN: 0006-3525.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
EM 199610

L41 ANSWER 3 OF 37 MEDLINE  
AN 96255528 MEDLINE  
DN 96255528  
TI Use of conformationally constrained peptides for a topographical analysis of the combining site of a monoclonal anti-substance P antibody.  
AU Dery O; Josien H; Grassi J; Chassaing G; Couraud J Y; Lavielle S  
CS CEA, Service de Pharmacologie et d'immunologie DSV/DRIPP, Bat 136, Gif-sur-Yvette, France.  
SO BIOPOLYMERS, (1996 Jul) 39 (1) 67-74.  
Journal code: A5Z. ISSN: 0006-3525.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
EM 199701  
EW 19970104

L41 ANSWER 4 OF 37 MEDLINE  
AN 96065501 MEDLINE  
DN 96065501  
TI Parallel bioassay of PG-SPI, an amphibian acidic SP-like peptide, mammalian basic substance P, and neurokinins A and B on in vitro and in vivo test systems.  
AU Broccardo M; Improta G; Severini C  
CS Institute of Medical Pharmacology, University of Rome La Sapienza, Italy..  
SO PEPTIDES, (1995) 16 (4) 609-14.  
Journal code: PA7. ISSN: 0196-9781.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199602

L41 ANSWER 5 OF 37 MEDLINE  
AN 96050849 MEDLINE  
DN 96050849  
TI Substance P augments tumor necrosis factor release in human

monocyte-derived macrophages.

AU Lee H R; Ho W Z; Douglas S D  
 CS Division of Allergy, Immunology and Infectious Diseases, Children's  
 hospital of Philadelphia, PA 19104, USA.  
 NC MH 47422 (NIMH)  
 NS 27405 (NINDS)  
 SO CLINICAL AND DIAGNOSTIC LABORATORY IMMUNOLOGY, (1994 Jul) 1 (4) 419-23.  
 Journal code: CB7. ISSN: 1071-412X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199605

L41 ANSWER 6 OF 37 MEDLINE  
 AN 95127889 MEDLINE  
 DN 95127889  
 TI NMR and molecular modeling investigations of the neuropeptide substance P  
 in the presence of 15 mM sodium dodecyl sulfate micelles.  
 AU Young J K; Anklin C; Hicks R P  
 CS Department of Chemistry, Mississippi State University, Mississippi  
 39762..  
 SO BIOPOLYMERS, (1994 Nov) 34 (11) 1449-62.  
 Journal code: A5Z. ISSN: 0006-3525.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 EM 199504

L41 ANSWER 7 OF 37 MEDLINE  
 AN 94041852 MEDLINE  
 DN 94041852  
 TI Synthesis and in vitro activities of new tryptophan-modified and  
 thiomethylene-containing pseudopeptide antagonists of the neurokinins.  
 AU Paladino J; Thurieau C; Morris A D; Kucharczyk N; Rouissi N; Regoli D;  
 Fauch'ere J L  
 CS Servier Research Institute, Suresnes, France.  
 SO INTERNATIONAL JOURNAL OF PEPTIDE AND PROTEIN RESEARCH, (1993 Sep) 42 (3)  
 284-93.  
 Journal code: GSD. ISSN: 0367-8377.  
 CY Denmark  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199402

L41 ANSWER 8 OF 37 MEDLINE  
 AN 93309353 MEDLINE  
 DN 93309353  
 TI A metabolite of substance P, SP7-11 is involved in the pathogenesis of  
 inflammatory joint disease.  
 AU Halliday D A; McNeil J D; Scicchitano R  
 CS Department of Medicine, Royal Adelaide Hospital, South Australia..  
 SO MEDICAL HYPOTHESES, (1993 Apr) 40 (4) 227-31.  
 Journal code: MOM. ISSN: 0306-9877.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199310

L41 ANSWER 9 OF 37 MEDLINE  
 AN 93292508 MEDLINE

DN 93292508  
 TI Primary structures and biological activities of substance-P-related peptides from the brain of the dogfish, *Scyliorhinus canicula*.  
 AU Waugh D; Wang Y; Hazon N; Balment R J; Conlon J M  
 CS Regulatory Peptide Center, Creighton University School of Medicine, Omaha, NE 68178..  
 SO EUROPEAN JOURNAL OF BIOCHEMISTRY, (1993 Jun 1) 214 (2) 469-74.  
 Journal code: EMZ. ISSN: 0014-2956.  
 CY GERMANY: Germany, Federal Republic of  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 OS GENBANK  
 EM 199309

L41 ANSWER 10 OF 37 MEDLINE  
 AN 93122514 MEDLINE  
 DN 93122514  
 TI Structural characterization of tachykinins (neuropeptide gamma, neurokinin A, and substance P) from a reptile, *Alligator mississippiensis*.  
 AU Wang Y; O'Harte F; Conlon J M  
 CS Department of Biomedical Sciences, Creighton University School of Medicine, Omaha, Nebraska 68178..  
 SO GENERAL AND COMPARATIVE ENDOCRINOLOGY, (1992 Nov) 88 (2) 277-86.  
 Journal code: FL9. ISSN: 0016-6480.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199304

L41 ANSWER 11 OF 37 MEDLINE  
 AN 92289881 MEDLINE  
 DN 92289881  
 TI The novel high-affinity antagonist, galantide, blocks the galanin-mediated inhibition of glucose-induced insulin secretion.  
 AU Lindskog S; Ahren B; Land T; Langel U; Bartfai T  
 CS Department of Pharmacology, Lund University, Sweden..  
 SO EUROPEAN JOURNAL OF PHARMACOLOGY, (1992 Jan 14) 210 (2) 183-8.  
 Journal code: EN6. ISSN: 0014-2999.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199209

L41 ANSWER 12 OF 37 MEDLINE  
 AN 92288731 MEDLINE  
 DN 92288731  
 TI Biochemical characterization and anatomical distribution of a major form of unamidated precursor of substance P in rat brain.  
 AU Marchand J E; Shimonaka H; Kream R M  
 CS Anesthesia Research, Tufts University School of Medicine, Boston, MA 02111..  
 NC DA04128 (NIDA)  
 SO BRAIN RESEARCH, (1991 Dec 20) 567 (2) 290-305.  
 Journal code: B5L. ISSN: 0006-8993.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English



FS Priority Journals  
EM 199209

L41 ANSWER 13 OF 37 MEDLINE  
AN 92207255 MEDLINE  
DN 92207255  
TI [Cyclic analogs of substance P. III. Cyclo (6(sup)gamma----oligomethylenediamine----11) substance P(6-11)-hexapeptides]. Tsiklicheskie analogi veshchestva P. III. Cyclo(6(sup)gamma----oligometilendiamin----11) veshchestvo P(6-11)-geksapeptidy.  
AU Mutulis F K; Mutule I E; Maurops GKh; Bergmann Iu; Myshliakova N V; Strazda G M; Liepin'sh E E; Saulitis IuB; Grigor'eva V D; Balodis IuIu;  
et al  
SO BIOORGANICHESKAIA KHIMIIA, (1991 Oct) 17 (10) 1412-23.  
Journal code: 9Z8. ISSN: 0132-3423.  
CY USSR  
DT Journal; Article; (JOURNAL ARTICLE)  
LA Russian  
FS Priority Journals  
EM 199207

L41 ANSWER 14 OF 37 MEDLINE  
AN 92018697 MEDLINE  
DN 92018697  
TI Influence of the replacement of amino acid by its D-enantiomer in the sequence of substance P. 2. Conformational analysis by NMR and energy calculations.  
AU Convert O; Duplaa H; Lavielle S; Chassaing G  
CS Laboratoire de Chimie Organique Structurale, CNRS URA 455, Universite Pierre et Marie Curie, Paris, France.  
SO NEUROPEPTIDES, (1991 Aug) 19 (4) 259-70.  
Journal code: NZC. ISSN: 0143-4179.  
CY SCOTLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199201

L41 ANSWER 15 OF 37 MEDLINE  
AN 92018696 MEDLINE  
DN 92018696  
TI Influence of the replacement of amino acid by its D-enantiomer in the sequence of substance P. 1. Binding and pharmacological data.  
AU Duplaa H; Chassaing G; Lavielle S; Beaujouan J C; Torrens Y; Saffroy M; Glowinski J; D'Orleans Juste P; Regoli D; Carruette A; et al  
CS Laboratoire de Chimie Organique Biologique, CNRS URA 493, Universite Paris VI, France.  
SO NEUROPEPTIDES, (1991 Aug) 19 (4) 251-7.  
Journal code: NZC. ISSN: 0143-4179.  
CY SCOTLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199201

L41 ANSWER 16 OF 37 MEDLINE  
AN 91091388 MEDLINE  
DN 91091388  
TI Substance P and antagonists. Surface activity and molecular shapes.  
AU Seelig A  
CS Department of Biophysical Chemistry, Biocenter of the University of Basel,

Switzerland..

SO BIOCHIMICA ET BIOPHYSICA ACTA, (1990 Nov 30) 1030 (1) 111-8.  
Journal code: AOW. ISSN: 0006-3002.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 199104

  

L41 ANSWER 17 OF 37 MEDLINE

AN 91015090 MEDLINE

DN 91015090

TI Immunoregulatory activity of substance P fragments.

AU Siemion I Z; Nawrocka E; Slon J; Pedyczak A; Kubik A; Spiegel K; Zimecki M; Wieczorek Z

CS Institute of Chemistry, Wroclaw University, Poland..

SO MOLECULAR IMMUNOLOGY, (1990 Sep) 27 (9) 887-90.  
Journal code: NGL. ISSN: 0161-5890.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 199101

  

L41 ANSWER 18 OF 37 MEDLINE

AN 90056663 MEDLINE

DN 90056663

TI Conformation-activity relationship in hexapeptides related to substance P.

AU Elguero J; Garcia-Anton J M; Goya P; Haro I; Martinez A; Reig F

CS Instituto de Quimica Medica Consejo Superior de Investigaciones Cientificas, Madrid, Spain..

SO ARZNEIMITTEL-FORSCHUNG, (1989 Aug) 39 (8) 835-8.  
Journal code: 91U. ISSN: 0004-4172.

CY GERMANY, WEST: Germany, Federal Republic of

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199002

  

L41 ANSWER 19 OF 37 MEDLINE

AN 90054228 MEDLINE

DN 90054228

TI A semicontinuous, high-performance liquid chromatography-based assay for stromelysin.

AU Harrison R; Teahan J; Stein R

CS Department of Enzymology, Merck Sharp and Dohme Research Laboratories, Rahway, New Jersey 07065.

SO ANALYTICAL BIOCHEMISTRY, (1989 Jul) 180 (1) 110-3.  
Journal code: 4NK. ISSN: 0003-2697.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199002

  

L41 ANSWER 20 OF 37 MEDLINE

AN 90044685 MEDLINE

DN 90044685

TI Primary amino acid sequence of guinea-pig substance P.

AU Murphy R

CS Department of Anatomy & Histology, School of Medicine, Flinders University, Bedford Park, Australia..

SO NEUROPEPTIDES, (1989 Aug-Sep) 14 (2) 105-10.  
 Journal code: NZC. ISSN: 0143-4179.  
 CY SCOTLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199002

L41 ANSWER 21 OF 37 MEDLINE  
 AN 90015229 MEDLINE  
 DN 90015229  
 TI Contractile activity of the N-acylated C-terminal part of substance P7-11 in guinea pig trachea. Effect of epithelium removal.  
 AU Tschirhart E; Schmitt P; Bertrand C; Mayer M; Magneney S; Landry Y; Michelot R  
 CS Laboratoire de Neuroimmunopharmacologie, Universite Louis Pasteur, Strasbourg, France..  
 SO NAUNYN-SCHMIEDEBERGS ARCHIVES OF PHARMACOLOGY, (1989 Jul) 340 (1) 107-10.  
 Journal code: NTQ. ISSN: 0028-1298.  
 CY GERMANY, WEST: Germany, Federal Republic of  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199001

L41 ANSWER 22 OF 37 MEDLINE  
 AN 88204263 MEDLINE  
 DN 88204263  
 TI Arg3]substance P and neurokinin A from chicken small intestine.  
 AU Conlon J M; Katsoulis S; Schmidt W E; Thim L  
 CS Clinical Research Group for Gastrointestinal Endocrinology, Max-Planck-Gesellschaft, Gottingen, F.R.G..  
 SO REGULATORY PEPTIDES, (1988 Feb) 20 (2) 171-80.  
 Journal code: RBB. ISSN: 0167-0115.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198808

L41 ANSWER 23 OF 37 MEDLINE  
 AN 87213419 MEDLINE  
 DN 87213419  
 TI [Determination of interproton distances in peptides by two-dimensional nuclear Overhauser effect spectroscopy (NOESY). Conformation of a cyclic analog of substance P in a solution].  
 Opredelenie mezhprotonnykh rasstoianii v peptidakh metodom dvumernoi spektroskopii iadernogo effekta Overkhauzera (NOESY). Konformatsiia tsiklicheskogo analoga "veshchestva P" v rastvore.  
 AU Saulitis IuB; Liepin'sh E E  
 SO BIOORGANICHESKAIA KHIMIIA, (1987 Feb) 13 (2) 168-76.  
 Journal code: 9Z8. ISSN: 0132-3423.  
 CY USSR  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA Russian  
 FS Priority Journals  
 EM 198708

L41 ANSWER 24 OF 37 MEDLINE  
 AN 86175370 MEDLINE  
 DN 86175370  
 TI Pyridoxal-5'-phosphate derivatives of substance P: preparation, spasmogenic activity, and degradation by human plasma.

AU Akopyan T; Arzumanyan A; Aghajanyan H; Arutunyan A; Khanazadyan A  
 SO NEUROCHEMICAL RESEARCH, (1986 Jan) 11 (1) 47-53.  
 Journal code: NX9. ISSN: 0364-3190.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198607

L41 ANSWER 25 OF 37 MEDLINE  
 AN 86137392 MEDLINE  
 DN 86137392  
 TI Multiple-copy genes: production and modification of monomeric peptides  
 from large multimeric fusion proteins.  
 AU Kempe T; Kent S B; Chow F; Peterson S M; Sundquist W I; L'Italien J J;  
 Harbrecht D; Plunkett D; DeLorbe W J  
 SO GENE, (1985) 39 (2-3) 239-45.  
 Journal code: FOP. ISSN: 0378-1119.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 OS GENBANK-M14413  
 EM 198606

L41 ANSWER 26 OF 37 MEDLINE  
 AN 86103513 MEDLINE  
 DN 86103513  
 TI Arterial blood pressure response in conscious rabbits to administration  
 of  
 C-terminal fragment of substance P into the cerebral ventricles,  
 intravenously and intragastrically.  
 AU Meltzer B; Traczyk W Z; Kubicki J  
 SO ARZNEIMITTEL-FORSCHUNG, (1985) 35 (9) 1374-7.  
 Journal code: 91U. ISSN: 0004-4172.  
 CY GERMANY, WEST: Germany, Federal Republic of  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198604

L41 ANSWER 27 OF 37 MEDLINE  
 AN 86094661 MEDLINE  
 DN 86094661  
 TI [Synthesis of cyclic and non-cyclic tachykinin partial sequences. 2.  
 Synthesis of the homocyclic substance P(6-11) hexapeptide].  
 Synthese cyclischer und cyclisch-verzweigter Tachykinin-Teilsequenzen.  
 Teil 2: Darstellung des homodet-cyclischen Substanz  
 P(6-11)-Hexapeptides.  
 AU Neubert K; Hartrodt B; Mehli B; Ruger M; Bergmann J; Lindau J; Jakubke H  
 D; Barth A  
 SO PHARMAZIE, (1985 Aug) 40 (8) 532-5.  
 Journal code: P4D. ISSN: 0031-7144.  
 CY GERMANY, EAST: German Democratic Republic  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA German  
 FS Priority Journals  
 EM 198604

L41 ANSWER 28 OF 37 MEDLINE  
 AN 86050779 MEDLINE  
 DN 86050779  
 TI [Substance P. New cyclic analogs].

Veshchestvo P. Tsiklicheskie analogi novogo tipa.  
 AU Mutulis F K; Mutule I E; Maurops GK; Sekatsis I P; Grigor'eva V D  
 SO BIOORGANICHESKAIA KHIMIIA, (1985 Sep) 11 (9) 1276-8.  
 Journal code: 9Z8. ISSN: 0132-3423.  
 CY USSR  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA Russian  
 FS Priority Journals  
 EM 198602

L41 ANSWER 29 OF 37 MEDLINE  
 AN 85261395 MEDLINE  
 DN 85261395  
 TI A rat brain isozyme of angiotensin-converting enzyme. Unique specificity for amidated peptide substrates.  
 AU Strittmatter S M; Thiele E A; Kapiloff M S; Snyder S H  
 NC GM-07309 (NIGMS)  
 DA-00266 (NIDA)  
 NS-16375 (NINDS)  
 +  
 SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1985 Aug 15) 260 (17) 9825-32.  
 Journal code: HIV. ISSN: 0021-9258.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 198511

L41 ANSWER 30 OF 37 MEDLINE  
 AN 85036893 MEDLINE  
 DN 85036893  
 TI A peptidases-resistant glycosylated analogue of substance P-(5-11). Specificity towards substance P receptors.  
 AU Poujade C; Lavielle S; Torrens Y; Beaujouan J C; Glowinski J; Marquet A  
 SO NEUROPEPTIDES, (1984 Sep) 4 (5) 361-8.  
 Journal code: NZC. ISSN: 0143-4179.  
 CY SCOTLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198502

L41 ANSWER 31 OF 37 MEDLINE  
 AN 83221551 MEDLINE  
 DN 83221551  
 TI Substance P and [Leu]enkephalin are hydrolyzed by an enzyme in pig caudate synaptic membranes that is identical with the endopeptidase of kidney microvilli.  
 AU Matsas R; Fulcher I S; Kenny A J; Turner A J  
 SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1983 May) 80 (10) 3111-5.  
 Journal code: PV3. ISSN: 0027-8424.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 198309

L41 ANSWER 32 OF 37 MEDLINE  
 AN 83178064 MEDLINE  
 DN 83178064  
 TI Conformational studies on substance P. C-terminal pentapeptide pGlu-

1123-8.  
Journal code: 9Y8. ISSN: 0006-291X.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198307

L41 ANSWER 33 OF 37 MEDLINE  
AN 83138657 MEDLINE  
DN 83138657  
TI Synthesis of partially modified retro-inverso substance P analogues and their biological activity.  
AU Chorev M; Rubini E; Gilon C; Wormser U; Selinger Z  
NC NS16658-02 (NINDS)  
SO JOURNAL OF MEDICINAL CHEMISTRY, (1983 Feb) 26 (2) 129-35.  
Journal code: JOF. ISSN: 0022-2623.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198306

L41 ANSWER 34 OF 37 MEDLINE  
AN 80143212 MEDLINE  
DN 80143212  
TI Cycloheximide-sensitive synthesis of substance P by isolated dorsal root ganglia.  
AU Harmar A; Schofield J G; Keen P  
SO NATURE, (1980 Mar 20) 284 (5753) 267-9.  
Journal code: NSC. ISSN: 0028-0836.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198007

L41 ANSWER 35 OF 37 MEDLINE  
AN 80026666 MEDLINE  
DN 80026666  
TI Studies on peptides. LXXXI. Application of a new arginine derivative, NG-mesitylene-2-sulfonylarginine, to the synthesis of substance P and neurotensin.  
AU Yajima H; Akaji K; Mitani K; Fujii N; Funakoshi S; Adachi H; Oishi M; Akazawa Y  
SO INTERNATIONAL JOURNAL OF PEPTIDE AND PROTEIN RESEARCH, (1979 Aug) 14 (2) 169-76.  
Journal code: GSD. ISSN: 0300-9769.  
CY Denmark  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198002

L41 ANSWER 36 OF 37 MEDLINE  
AN 79000478 MEDLINE  
DN 79000478  
TI Successive cleavage of N-terminal Arg1--Pro2 and Lys3-Pro4 from substance P but no release of Arg1-Pro2 from bradykinin, by X-Pro

(FILE 'HOME' ENTERED AT 12:28:47 ON 22 FEB 1999)

FILE 'MEDLINE' ENTERED AT 12:30:00 ON 22 FEB 1999

L1 8306 S GENE THERAPY  
 L2 6647 S OPIOID RECEPTOR  
 L3 2 S L1 AND L2  
 L4 693 S MYOGENIC CELLS  
 L5 3055 S MYOBLASTS  
 L6 2773 S MYOTUBES  
 L7 5 S (MUSCLE FIBER CELLS)  
 L8 5069 S L4 OR L5 OR L6 OR L7  
 L9 88 S L1 AND L8  
 L10 14365 S SUBSTANCE P  
 L11 1 S L10 AND L1  
 L12 2 S (OPIOIDE PEPTIDE)  
 L13 13509 S ENDORPHIN  
 L14 30582 S OPIOID  
 L15 5640 S L13 AND L14  
 L16 1028 S L13 AND L2  
 L17 1 S L1 AND L16  
 L18 0 S (MET SUP 5)  
 L19 14349 S ENKEPHALIN  
 L20 3 S L1 AND L19  
 L21 127 S L2 AND L10  
 L22 59 S L21 AND PEPTIDE  
 L23 382614 S INHIBITOR  
 L24 20 S L22 AND L23  
 L25 276107 S ANALOG  
 L26 310479 S (ANALOG OR ANALOGUE)  
 L27 212 S L26 AND L1  
 L28 2292 S L10 AND L26  
 L29 14365 S (L10 OR L28)  
 L30 1 S L1 AND L29

=> d 19 88, 81-86, 76, 78, 70, 67, 68, 65, 51, 46, 44 bib ab

103 (a) 2  
 L9 ANSWER 88 OF 88 MEDLINE  
 AN 91063293 MEDLINE  
 DN 91063293  
 TI Purification and proliferation of human **myoblasts** isolated with  
 fluorescence activated cell sorting.  
 AU Blau H M; Webster C; Pavlath G K  
 CS Department of Pharmacology, Stanford University School of Medicine, CA  
 94305..  
 SO ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY, (1990) 280 97-100.  
 Journal code: 2LU. ISSN: 0065-2598.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199103  
 L9 ANSWER 81 OF 88 MEDLINE

AU Naffakh N; Pinset C; Montarras D; Pastoret C; Danos O; Heard J M  
 CS Laboratoire Retrovirus et Transfert Genetique, URA CNRS 1157, Paris, France..  
 SO NEUROMUSCULAR DISORDERS, (1993 Sep-Nov) 3 (5-6) 413-7.  
 Journal code: BJS. ISSN: 0960-8966.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199408  
 AB We have explored the use of **myoblasts** obtained from adult animals as a target for somatic **gene therapy**. **Myoblasts** from an adult beta-glucuronidase deficient (MPS VII) mouse were isolated and infected with a retroviral vector carrying the human beta-glucuronidase cDNA. Beta-glucuronidase was used as a reporter gene to follow the fate of genetically-modified **myoblasts** after transplantation into the tibialis anterior of MPS VII recipients. When experimental necrosis had been induced in the recipient muscle prior to cell injection, histological analysis demonstrated efficient engraftment of adult derived **myoblasts** following gene transfer. The reconstituted myofibres expressed the transgene for at least 10 weeks following transplantation.

L9 ANSWER 68 OF 88 MEDLINE

AN 94242819 MEDLINE

DN 94242819

TI Retroviral vector-mediated gene transfer into human primary **myogenic cells** leads to expression in muscle fibers in vivo.

AU Salvatori G; Ferrari G; Mezzogiorno A; Servidei S; Coletta M; Tonali P; Giavazzi R; Cossu G; Mavilio F

CS Institute of Histology, University of Rome La Sapienza, Italy.

SO HUMAN GENE THERAPY, (1993 Dec) 4 (6) 713-23.

Journal code: A12. ISSN: 1043-0342.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199408

AB Primary human **myogenic cells** isolated from fetal and adult muscle were infected with a high-titer, Moloney murine leukemia virus (MoMLV)-derived retroviral vector expressing a bacterial beta-galactosidase (beta-gal) gene under long terminal repeat (LTR) control. Gene transfer efficiency averaged 50% in both fetal **myoblasts** and adult satellite cells, as revealed by beta-gal staining. The reporter gene was stably integrated, faithfully inherited, and expressed at significant levels in **myogenic cells** for at least 10 generations under clonal growth conditions, and throughout

the culture life span upon differentiation into **myotubes**.

Comparable gene transfer efficiency was obtained in **myogenic cells** from muscle biopsies of patients affected by a number of genetic or acquired myopathies, including Duchenne muscular dystrophy. Transduced normal human satellite cells were injected into regenerating muscle of immunodeficient mice, where they formed new muscle fibers in which the product of the reporter gene was detectable for 2 months after injection. These results show that retroviral vectors can be used to transfer foreign genes with high efficiency into normal or abnormal primary human **myogenic cells**, leading to stable expression into mature muscle. Satellite cells engineered in this way might represent an effective tool for **gene therapy of muscular dystrophies as well as for systemic delivery of recombinant gene products for correction of inherited and acquired disorders**. The



L3 ANSWER 1 OF 2 MEDLINE

AB Peptides are of potential interest in the field of **gene therapy** but require modification by genetic engineering to facilitate their secretion. Amino terminal addition of a signal peptide

is not always sufficient to achieve this goal, as found in this study for beta-endorphin. To overcome this problem, addition of the pre-pro-sequence

of mouse nerve growth factor to beta-endorphin was tested. Retrovirus-mediated expression of a hybrid construct of the pre-pro-sequence of nerve growth factor and human beta-endorphin in primary fibroblasts resulted in the secretion of beta-endorphin immunoreactivity at a rate of 620 pg/h/10(6) cells. Analysis of the secreted beta-endorphin immunoreactivity with reverse-phase HPLC, immunoassays using three different antibodies, and an assay for the specific displacement of [3H][D-Ala2,N-MePhe4,Gly-ol5]enkephalin from mu-opioid receptors suggests that the pre-pro-sequence is cleaved off from the pre-pro-sequence/beta-endorphin construct prior to secretion, resulting in bona fide beta-endorphin. Transplantation of beta-endorphin-secreting cells into brain or spinal cord may provide a gene therapy approach for the treatment of chronic, opioid-sensitive pain states.

AN 95131164 MEDLINE

DN 95131164

TI Retrovirus-mediated expression of an artificial beta-endorphin precursor in primary fibroblasts.

AU Beutler A S; Banck M S; Bach F W; Gage F H; Porreca F; Bilsky E J; Yaksh

T

L Department of Neurosciences, University of California, San Diego, La Jolla

92093-0818..

NC POI AG10435 (NIA)

SO JOURNAL OF NEUROCHEMISTRY, (1995 Feb) 64 (2) 475-81.

Journal code: JAV. ISSN: 0022-3042.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199504

L3 ANSWER 2 OF 2 MEDLINE

AB For the clinician to take full advantage of the rapid advances in molecular medicine, a working knowledge of the recombinant DNA methodologies employed will be required. This primer introduces current cloning strategies by examination of the cloning of the cystic fibrosis gene, an opioid receptor, and olfactory receptors that used the methodologies of DNA linkage analysis, functional cloning, and polymerase chain reaction with degenerate oligonucleotide primers, respectively. Molecular information obtained after cloning has had immediate effects on diagnosis and genetic counseling and holds the promise of novel treatment strategies, including somatic **gene therapy**.

AN 94000685 MEDLINE

DN 94000685

TI A primer of current molecular genetic strategies for clinicians.  
AU Hooper P F; Dreesen T D  
CS Department of Zoology and Physiology, Louisiana State University, Baton Rouge.  
NC 1R55GM44586-01A1 (NIGMS)  
SO ARCHIVES OF OTOLARYNGOLOGY -- HEAD AND NECK SURGERY, (1993 Oct) 119 (10) 1085-94. Ref: 88  
Journal code: ALQ. ISSN: 0886-4470.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
E

DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; Cancer Journals  
EM 199203  
AB A recombinant gene encoding human growth hormone (hGH) was stably introduced into cultured **myoblasts** with a retroviral vector. After injection of genetically engineered **myoblasts** into mouse muscle, hGH could be detected in serum for 3 months. The fate of injected **myoblasts** was assessed by coinfecting the cells with two retroviral vectors, one encoding hGH and the other encoding beta-galactosidase from Escherichia coli. These results provide evidence that **myoblasts**, which can fuse into preexisting multinucleated myofibers that are vascularized and innervated, may be advantageous as vehicles for systemic delivery of recombinant proteins.

L9 ANSWER 85 OF 88 MEDLINE  
AN 92073929 MEDLINE  
DN 92073929  
TI Systemic delivery of recombinant proteins by genetically modified **myoblasts** [see comments].  
CM Comment in: Science 1991 Dec 6;254(5037):1455-6  
AU Barr E; Leiden J M  
CS Howard Hughes Medical Institute, University of Michigan Medical Center, Ann Arbor 48109..  
NC 1 P01 DK42718-01 (NIDDK)  
SO SCIENCE, (1991 Dec 6) 254 (5037):1507-9.  
Journal code: UJ7. ISSN: 0036-8075.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; Cancer Journals  
EM 199203  
AB The ability to stably deliver recombinant proteins to the systemic circulation would facilitate the treatment of a variety of acquired and inherited diseases. To explore the feasibility of the use of genetically engineered **myoblasts** as a recombinant protein delivery system, stable transfectants of the murine C2C12 myoblast cell line were produced that synthesize and secrete high levels of human growth hormone (hGH) in vitro. Mice injected with hGH-transfected **myoblasts** had significant levels of hGH in both muscle and serum that were stable for at least 3 weeks after injection. Histological examination of muscles injected with beta-galactosidase-expressing C2C12 **myoblasts** demonstrated that many of the injected cells had fused to form multinucleated **myotubes**. Thus, genetically engineered **myoblasts** can be used for the stable delivery of recombinant proteins into the circulation.

L9 ANSWER 86 OF 88 MEDLINE  
AN 91322158 MEDLINE  
DN 91322158  
TI Implantation of recombinant rat myocytes into adult skeletal muscle: a potential **gene therapy**.  
AU Salminen A; Elson H F; Mickley L A; Fojo A T; Gottesman M M  
CS Laboratory of Cell Biology, National Cancer Institute, National Institutes of Health, Bethesda, MD 20892..  
SO HUMAN GENE THERAPY, (1991 Spring) 2 (1) 15-26.  
Journal code: A12. ISSN: 1043-0342.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals

R615.8  
H85  
103a.

effusions  
AU Batra, Raj K.; Olsen, John C.; Hoganson, Diana K.; Caterson, Bruce;  
Boucher, Richard C.  
CS Div. Pulmonary Diseases, Dep. Med., Univ. North Carolina, Chapel Hill,  
NC, 27599-7248, USA  
SO J. Biol. Chem. (1997), 272(18), 11736-11743  
CODEN: JBCHA3; ISSN: 0021-9258  
PB American Society for Biochemistry and Molecular Biology  
DT Journal  
LA English  
AB **Gene therapy** may be an important adjuvant for treating cancer in the pleural space. The initial results of retroviral gene transfer to cancer cells in malignant pleural effusions revealed that transduction was markedly inhibited, and studies to characterize the inhibitory factor(s) were performed. The inhibition was contained within the sol., rather than cellular, components of the effusions and was demonstrated with amphotropic gibbon ape leukemia virus, and vesicular stomatitis virus-glycoprotein pseudotyped retroviral vectors. After excluding complement proteins, a series of studies identified **chondroitin sulfates** (CSs) as the inhibitory substances. First, treatment of the effusions with mammalian hyaluronidase or chondroitinases, but not Streptomyces hyaluronidase, abolished the inhibitory activity. Second, addn. of exogenous CS glycosaminoglycans mimicked the inhibition obsd. with pleural effusions. Third, immunoassays and biochem. analyses of malignant pleural effusion specimens revealed CS in relevant concns. within pleural fluid. Fourth, proteoglycans/glycosaminoglycans isolated from the effusions inhibited retroviral gene transfer. Analyses of the mechanism of inhibition indicate that the **chondroitin sulfates** interact with vector in soln. rather than at the target cell surface. These results suggest that drainage of the malignant pleural effusion, and perhaps enzymic pretreatment of the pleural cavity, will be necessary for ~~efficient retroviral vector-mediated gene delivery to pleural metastases.~~

L65 ANSWER 4 OF 7 CAPLUS COPYRIGHT 1999 ACS

AN 1997:175163 CAPLUS

DN 126:176910

TI Gene preparations

IN Terada, Masaaki; Ochiya, Takahiro; Miyata, Teruo; Itoh, Hiroshi

PA Koken Co., Ltd., Japan; Sumitomo Pharmaceuticals Company, Limited; Terada,

Masaaki; Ochiya, Takahiro; Miyata, Teruo; Itoh, Hiroshi

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9702047	A1	19970123	WO 96-JP1824	19960702
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, KE, KG, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
	CA 2225998	AA	19970123	CA 96-2225998	19960702
	AU 9662436	A1	19970205	AU 96-62436	19960702
	JP 09071542	A2	19970318	JP 96-171990	19960702
	EP 844004	A1	19980527	EP 96-921138	19960702
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, FI  
CN 1193916 A 19980923 CN 96-196463 19960702  
PRAI JP 95-167744 19950703  
WO 96-JP1824 19960702  
AB Gene prepsns. comprise desired genes or vectors contg. desired genes integrated thereinto and carriers for supporting the same.

L65 ANSWER 5 OF 7 CAPLUS COPYRIGHT 1999 ACS

AN 1996:665069 CAPLUS

DN 125:294266

TI Evidence for the role of proteoglycans in cation-mediated gene transfer

AU Mislick, Kimberly A.; Baldeschwieler, John D.

CS Div. Chem. Chem. Eng., California Inst. Technol., casadena, CA, 91125, USA

SO Proc. Natl. Acad. Sci. U. S. A. (1996), 93(22), 12349-12354

CODEN: PNASA6; ISSN: 0027-8424

DT Journal

LA English

AB We report evidence that gene complexes, consisting of polycations and plasmid DNA enter cells via binding to membrane-assocd. proteoglycans. Treatment of HeLa cells with sodium chlorate, a potent inhibitor of proteoglycan sulfation, reduced luciferase expression by 69%. Cellular treatment with heparinase and chondroitinase ABC inhibited expression by 78% and 20% with respect to control cells. Transfection was dramatically inhibited by heparin and heparan sulfate and to a smaller extent by **chondroitin sulfate B**. Transfection of mutant, proteoglycan deficient Chinese hamster ovary cells was 53.times. lower than of wild-type cells. For each of these assays, the intracellular uptake of DNA at 37.degree.C and the binding of DNA to the cell membrane at 4.degree.C was impaired. Preliminary transfection expts. conducted in mutant and wild-type Chinese hamster ovary cells suggest that transfection

by some cationic lipids is also proteoglycan dependent. The variable distribution of proteoglycans among tissues may explain why some cell types are more susceptible to transfection than others.

L65 ANSWER 6 OF 7 CAPLUS COPYRIGHT 1999 ACS

AN 1993:226963 CAPLUS

DN 118:226963

TI Feline arylsulfatase B (ARSB): isolation and expression of the cDNA, comparison with human ARSB, and gene localization to feline chromosome A1

AU Jackson, Christine E.; Yuhki, Naoya; Desnick, Robert J.; Haskins, Mark E.;

O'Brien, Stephen J.; Schuchman, Edward H.

CS Div. Med. Mol. Genet., Mount Sinai Sch. Med., New York, NY, 10029, USA

SO Genomics (1992), 14(2), 403-11

CODEN: GNMCEP; ISSN: 0888-7543

DT Journal

LA English

AB Arylsulfatase B (ARSB) is the lysosomal enzyme that catalyzes the hydrolysis of 4-sulfate groups from N-acetylgalactosamine 4-sulfate moieties on the glycosaminoglycans dermatan sulfate and **chondroitin sulfate A**. In man, a deficiency of this enzymic activity causes the lysosomal storage disorder, Maroteaux-Lamy disease (mucopolysaccharidosis Type VI; MPS VI). MPS VI in Siamese cats also has been described, and the comparative pathol. and biochem. abnormalities of the human and feline disorders have been well characterized. The present study describes the isolation and expression of cDNAs encoding feline ARSB and the assignment of the feline ARSB gene to feline chromosome A1. The full-length feline ARSB cDNA sequence is 1939 bp, including 3 and 328 bp of 5' and 3' untranslated sequences, resp., and a 1608-bp open reading frame encoding 535 amino acids. The predicted human and feline ARSB proteins are 91% identical and 94%

similar. However, despite this high homol., the predicted feline ARSB polypeptide has nine cysteine residues, while the human enzyme has eight. The presence of the extra cysteine residue at position 451 in the feline enzyme may explain why feline ARSB is a homodimer and the human enzyme is a monomer. To facilitate comparative structure/function studies of the human and feline enzymes and to initiate somatic gene therapy trials in the MPS VI cats, a full-length feline ARSB cDNA was reconstructed from a 1440-bp partial cDNA and an ARSB fragment amplified from feline first-strand cDNA by the polymerase chain reaction. The functional integrity of this cDNA was demonstrated by transient expression in human embryonic kidney cells. The polymerase chain reaction

also has been used to analyze 38 feline/rodent somatic cell hybrids for the presence of the feline ARSB gene. Overall, there was 97% concordancy between the presence of the feline ARSB gene and feline chromosome A1. For each of the other chromosomes, at least 34% of the hybrids were discordant. ARSB is the fifth feline gene to be assigned to chromosome A1, providing further evidence that this feline chromosome is syntenic with human chromosome 5.

L65 ANSWER 7 OF 7 CAPLUS COPYRIGHT 1999 ACS

AN 1992:233223 CAPLUS

DN 116:233223

TI Hepatic storage of glycosaminoglycans in feline and canine models of mucopolysaccharidoses I, VI, and VII

AU Haskins, M. E.; Otis, E. J.; Hayden, J. E.; Jezyk, P. F.; Stramm, L.

CS Sch. Vet. Med., Univ. Pennsylvania, Philadelphia, PA, 19104-6051, USA

SO Vet. Pathol. (1992), 29(2), 112-19

CODEN: VTPHAK; ISSN: 0300-9858

DT Journal

LA English

AB Livers from normal cats and dogs, cats with mucopolysaccharidoses (MPS) I and VI, and dogs with MPS VII were analyzed biochem. and morphometrically to det. the lysosomal storage of glycosaminoglycans (GAG) in these animal models of human genetic disease. Anal. were performed on liver samples from seven normal cats ranging in age from 13 wk to 15 mo; six MPS I-affected cats ranging in age from 10 wk to 26 mo; four MPS VI-affected cats ranging in age from 9 mo to 32 mo; four normal dogs ranging in age from 1 mo to 47 mo; and three MPS VII-affected dogs, 5 days, 11 days, and 14 mo of age. All of the animals were from the breeding colony at the University of Pennsylvania School of Veterinary Medicine and were maintained in accordance with national stds. for the care and use of lab. animals. Each GAG subclass was quantitated, and total GAG concn. was detd. Liver from cats with MPS I had the highest total GAG concn. (5.7 times that of the control), followed by liver from dogs with MPS VII (1.8 times) and cats with MPS VI (1.5 times). These data were very closely correlated with the results of the morphometric anal. of hepatocyte and Kupffer cell vacuolation assocd. with lysosomal storage and support the validity of both methods. This is particularly important for the quantification of total and individual GAG concns. in tissue preps. The values obtained should prove useful in future assessments of therapeutic regimes, such as enzyme replacement, bone marrow transplantation, and gene therapy, for these genetic diseases.

SO AGENTS AND ACTIONS. SUPPLEMENTS, (1993) 41 75-87. Ref: 66  
Journal code: 2YH. ISSN: 0379-0363.

CY Switzerland

DT Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LA English

FS Priority Journals

EM 199309

AB **Substance P** has been implicated in peripheral inflammatory responses and recent evidence from animal models indicates that **substance P** (NK-1 receptor) antagonists are effective in blocking peripheral inflammatory responses as well as nociception (**pain**) associated with inflammation. Evidence implicating **substance P** in nociception is reviewed in this survey, along with evidence on the effects of NK-1 receptor antagonists and with some comments on the usefulness of such antagonists as analgesics.

L16 ANSWER 128 OF 182 MEDLINE

AN 92075096 MEDLINE

DN 92075096

TI **Pain** control with intrathecally and peridurally administered opioids and other drugs.

AU Foldes F F

CS Department of Anesthesiology, University of Miami, School of Medicine, Florida..

SO ANAESTHESIOLOGIE UND REANIMATION, (1991) 16 (5) 287-98. Ref: 68

Journal code: ACU. ISSN: 0323-4983.

CY GERMANY: Germany, Federal Republic of

DT Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LA English

EM 199203

AB Sharp **pain** is conducted rapidly by myelinated delta A fibers and diffused **pain** slowly by nonmyelinated C fibers to pseudobipolar neurons in the posterior ganglion and from there to neurons located in

the

posterolateral horn of the spinal cord. From here on nociferous impulses are transmitted by excitatory peptides (e.g. **substance P**) or amino acids (e.g. glutamate, aspartate) through interconnecting neurons of the **pain** pathways, primarily on the contralateral side, to the brain stem and from there to the sensory cortex, where they are appreciated and acted upon. There are specific **inhibitory receptors** located on axon terminals, near to the release sites of the excitatory amino acids and peptides. Stimulation of these **receptors** by their appropriate ligands such as endogenous (e.g. enkephalis, endorphins) or exogenous opioids, clonidine, serotonin, somatostatin **inhibits** the release of excitatory neurotransmitters and **relieves pain**. There are at least 3 different opioid **receptors**, called mu-, kappa- and delta-**receptors** in the spinal cord. These can be differentiated from one another by their specific affinity toward different endogenous or exogenous opioids and the pure narcotic antagonist, naloxone. It appears that the nociferous impulses transmitted by parallel pathways equipped with different **inhibitory receptors** have to be integrated to produce **pain** sensation and partial **inhibition** of transmission in different pathways or complete **inhibition** in one of the pathways may **relieve pain**. In recent years the concept of "selective spinal analgesia" has been applied clinically for the relief of postoperative, obstetrical and chronic **pain**. At first it was expected that the intrathecal or peridural

administration of morphine will produce analgesia without the side effects

of systemically administered morphine. It soon became evident, however, that intrathecally and peridurally administered morphine after several hours of delay reaches the fourth ventricle and by stimulating mu-receptors may cause respiratory depression and other undesired effects (e.g. nausea, vomiting, pruritus). Several different approaches are being investigated for the production of selective spinal analgesia without side effects. They include: a. the use of more lipophilic, long-lasting opioids (e.g. lofentanil) which would be almost completely absorbed by the spinal cord and therefore would not reach the medullary centers; b. the development of opioids with specific affinity to kappa- and for delta- and little or no affinity to mu-receptors, primarily responsible for side effects; and c. combining lower doses of opioid agonists with alpha 2-adrenergic agonists (e.g. clonidine) or with somatostatin. It is conceivable that in the not-too-distant future, it will be possible to achieve through these measures, selective spinal analgesia without side effects.

L16 ANSWER 142 OF 182 MEDLINE

AN 90160725 MEDLINE

DN 90160725

TI **Blockage of substance P-induced scratching**

behavior in rats by the intrathecal administration of inhibitory amino acid agonists.

AU Beyer C; Banas C; Gonzalez-Flores O; Komisaruk B R

CS Institute of Animal Behavior, Rutgers, State University, Newark, NJ 07102.

NC NLS-25 RO1 NS22948-02 (NINDS)

SO PHARMACOLOGY, BIOCHEMISTRY AND BEHAVIOR, (1989 Nov) 34 (3) 491-5.  
Journal code: P3Q. ISSN: 0091-3057.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199005

AB Intrathecal administration of 20 micrograms of **substance P** induced scratching behavior in most tested rats (80%). Scratching appeared in bouts of short latency and variable duration, intensity and frequency (range 1-60, mean number of scratching bouts in one hour test: 8.93 +/- 1.86). Intrathecal administration of glycine (400 micrograms but not 66 micrograms) significantly decreased the effect of **substance P** on this behavior. Taurine, in dosages equimolar to glycine, abolished the response to **substance P** at the high dose level (700 micrograms), but did not significantly affect it at the lower level (120 micrograms). The GABAA agonist, muscimol, abolished the effect of **substance P** at the 3 micrograms dose level, but the 0.5 microgram dose did not produce

a significant effect. Baclofen, a GABAB agonist, was highly effective in significantly reducing the action of SP at 0.9 and 0.15 microgram; only two of 8 rats receiving the low dose of baclofen (0.15 microgram) exhibited scratching. The results suggest that the spinal **inhibitory** amino acids modulate nociceptive impulses generated by the action of **substance P** in dorsal horn neurons of the spinothalamic tract.

L16 ANSWER 145 OF 182 MEDLINE

AN 90043010 MEDLINE

DN 90043010

TI Antinociceptive effect of spinal cholinergic stimulation: interaction with **substance P**.



AU Smith M D; Yang X H; Nha J Y; Buccafusco J J  
 CS Department of Pharmacology and Toxicology, Medical College of Georgia,  
 Augusta 30912..  
 SO LIFE SCIENCES, (1989) 45 (14) 1255-61.  
 Journal code: L62. ISSN: 0024-3205.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199002  
 AB Activation of central muscarinic **receptors** results in an  
 antinociceptive response in experimental animals. Employing intrathecal  
 (i.t.) injection and radiant heat applied to a rat's tail as the  
 experimental paradigm, a spinally-mediated antinociceptive response was  
 obtained following injection of cholinergic agonists. Since "cholinergic"  
 analgesia is mediated independently of the opiate system, the possibility  
 was considered that this response was mediated through **inhibition**  
 of the local release of **substance P**. Rats were  
 prepared with indwelling i.t. catheters which terminated in the L2-L3  
 region of the spinal cord. I.t. injection of carbachol (0.05-5  
 micrograms)  
 or neostigmine (1-10 micrograms), but not nicotine (0.5-10 micrograms)  
 produced dose-related increases in tail flick latencies. Pretreatment  
 with  
 i.t. injection of atropine or hemicholinium-3 significantly  
**inhibited** the antinociceptive response to neostigmine. Spinal  
**substance P** levels were measured 30 min following 0.5  
 micrograms carbachol. Levels in the dorsal horn were reduced by 30%  
 compared with saline controls. Levels in the ventral horn were unchanged  
 by carbachol. These results support the role of endogenous spinal  
 acetylcholine in **pain** modification and suggest an interaction  
 with **substance P** neurons of the dorsal spinal cord.

L16 ANSWER 147 OF 182 MEDLINE

AN 89248499 MEDLINE

DN 89248499

TI Long-lasting neurochemical and functional changes in rats induced by  
 neonatal administration of **substance P** antiserum.

AU De Felipe M C; Molinero M T; Del Rio J

CS Department of Neuropharmacology, Cajal Institute, CSIC, Madrid, Spain..

SO BRAIN RESEARCH, (1989 Apr 24) 485 (2) 301-8.

Journal code: B5L. ISSN: 0006-8993.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198909

AB **Substance P** (SP) antiserum was administered to rats on  
 the second day of life. Three months later, the content of SP was  
 significantly decreased in the dorsal part of the spinal cord and in the  
 periaqueductal gray matter of these animals, as compared to control rats  
 receiving a neonatal treatment of non-specific immunoglobulins. Further,  
 the levels of Met-enkephalin and 5-hydroxyindole acetic acid (5-HIAA)  
 were  
 concomitantly increased in the same regions. SP **receptor** binding  
 sites and opioid **receptors**, which appear earlier in development,  
 were not modified in the two regions studied. On the other hand, the  
 antinociceptive response to intracerebroventricular (i.c.v.) injection of  
 SP or of the synthetic enkephalin analog D-Ala2,D-Leu5-enkephalin, as  
 well  
 as the hypertensive response to i.c.v. SP were **blocked**. The  
 results suggest that, after administration to newborn rats, the antiserum  
 is able to penetrate into SP neurons, producing a long-lasting SP

SO BRAIN RESEARCH, (1985 Dec 16) 359 (1-2) 177-82.  
Journal code: B5L. ISSN: 0006-8993.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198604

AB To investigate pre-synaptic influence of the descending noradrenergic system on the primary afferents containing **substance P** (SP), effects of noradrenergic manipulations on the in situ release of immunoreactive SP (iSP) from the dorsal horn were examined in the thalamic

rabbit. Local application of noradrenaline (10 microM) to the dorsal horn produced complete **inhibition** of the noxious mechanical stimuli-evoked release of iSP. This effect was reversed by yohimbine (the more selective alpha 2-**blocker**, 10 microM) and partially antagonized by prazosin (the more selective alpha 1-**blocker**, 10 microM). The resting release of iSP was not affected by noradrenaline.

The

noxious mechanical stimuli-evoked release of iSP was significantly increased by acute spinal transection and local application of yohimbine (10 microM) alone to the dorsal horn. Prazosin (10 microM) slightly increased the evoked iSP release, and a beta-**blocker** metoprolol did not affect it. These results suggest that the nociceptive primary afferents containing SP are tonically **inhibited** by the descending noradrenergic system linked to alpha-adrenoceptors, and that such alpha-adrenoceptors located on the primary afferent terminals may be one of the sites of action of noradrenaline spinal analgesia. In contrast to the evoked iSP release, the resting iSP release was increased only by acute spinal transection and not by yohimbine, prazosin and metoprolol. All these observations suggest that tonic **inhibition** in propriospinal neurons containing SP is mediated by a non-noradrenergic system.

L16 ANSWER 170 OF 182 MEDLINE

AN 85046704 MEDLINE

DN 85046704

TI Pain-depressing agents and the spinal nociceptive system.

AU Jurna I

SO ARZNEIMITTEL-FORSCHUNG, (1984) 34 (9A) 1084-8.  
Journal code: 91U. ISSN: 0004-4172.

CY GERMANY, WEST: Germany, Federal Republic of

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198502

AB The spinal nociceptive system is the target of various **pain** depressing agents. It is capable to function without control from the brain. It is activated by tissue damage which, by excitation of nociceptive afferents, evokes activity in axons ascending to the brain (sensory nociceptive response) and in spinal reflex pathways (motor and autonomic responses). The prototype of an analgesic agent, morphine, suppresses nociceptive responses by binding to opiate **receptors**; it imitates the effect of the transmitter(s) released from endorphinergic neurones. Pentobarbital and diazepam reduce nociceptive (and non-nociceptive) responses by acting on the GABA **receptor** complex; both drugs facilitate the effect of the transmitter GABA which mediates presynaptic **inhibition** in the spinal cord. Pentobarbital may produce its effects by an additional action on postsynaptic neurone membranes. Clonidine depresses nociceptive responses, probably by imitating the action of the **inhibitory** transmitter, noradrenaline. **Substance P** acts as a "synaptic

L30 1526195 S THERAPY  
L31 57789 S L8 AND L30  
L32 146 S L29 AND L31  
L33 3720 S MYOBLAST

=> s 133 and 14

L34 93 L33 AND L4

=> d 1-93

L34 ANSWER 1 OF 93 MEDLINE  
AN 1999068476 MEDLINE  
DN 99068476  
TI Development of approaches to improve the healing following muscle contusion.  
AU Kasemkijwattana C; Menetrey J; Somogyl G; Moreland M S; Fu F H; Buranapanitkit B; Watkins S C; Huard J  
CS Department of Orthopaedic Surgery, Musculoskeletal Research Center, University of Pittsburgh, and Children's Hospital of Pittsburgh, PA 15261, USA.  
NC 1P60 AR44811-01 (NIAMS)  
SO CELL TRANSPLANTATION, (1998 Nov-Dec) 7 (6) 585-98.  
Journal code: B02. ISSN: 0963-6897.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199904  
EW 19990403

L34 ANSWER 2 OF 93 MEDLINE  
AN 1999043385 MEDLINE  
DN 99043385  
TI Encapsulation of various recombinant mammalian cell types in different alginate microcapsules.  
AU Peirone M; Ross C J; Hortelano G; Brash J L; Chang P L  
CS Department of Biology, McMaster University, Hamilton, Ontario, Canada.  
SO JOURNAL OF BIOMEDICAL MATERIALS RESEARCH, (1998 Dec 15) 42 (4) 587-96.  
Journal code: HJJ. ISSN: 0021-9304.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199904  
EW 19990401

L34 ANSWER 3 OF 93 MEDLINE  
AN 1998409498 MEDLINE  
DN 98409498  
TI Adenovirus-mediated transfer of the acid alpha-glucosidase gene into fibroblasts, myoblasts and myotubes from patients with glycogen storage disease type II leads to high level expression of enzyme and corrects glycogen accumulation.  
AU Nicolino M P; Puech J P; Kremer E J; Reuser A J; Mbebi C; Verdi'ere-Sahuque M; Kahn A; Poenaru L  
CS Laboratoire de Genetique, Universite Rene Descartes (Paris V), CHU Cochin-Port Royal.  
SO HUMAN MOLECULAR GENETICS, (1998 Oct) 7 (11) 1695-702.  
Journal code: BRC. ISSN: 0964-6906.  
CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199902  
 EW 19990204

L34 ANSWER 4 OF 93 MEDLINE  
 AN 1998300290 MEDLINE  
 DN 98300290  
 TI Successful transplantation of genetically corrected DMD myoblasts following ex vivo transduction with the dystrophin minigene.  
 AU Moisset P A; Skuk D; Asselin I; Goulet M; Roy B; Karpati G; Tremblay J P  
 CS Laboratoire de Genetique Humaine, Universite Laval, CHUL, Quebec, Canada.  
 SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1998 Jun 9) 247 (1) 94-9.  
 Journal code: 9Y8. ISSN: 0006-291X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199809  
 EW 19980901

L34 ANSWER 5 OF 93 MEDLINE  
 AN 1998294498 MEDLINE  
 DN 98294498  
 TI A method to codetect introduced genes and their products in gene therapy protocols.  
 AU Gussoni E; Wang Y; Fraefel C; Miller R G; Blau H M; Geller A I; Kunkel L M  
 CS Division of Genetics, Children's Hospital, Boston, MA 02115, USA.  
 NC AG10827 (NIA)  
 NS23740 (NINDS)  
 SO NATURE BIOTECHNOLOGY, (1996 Aug) 14 (8) 1012-6.  
 Journal code: CQ3. ISSN: 1087-0156.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199809  
 EW 19980902

L34 ANSWER 6 OF 93 MEDLINE  
 AN 1998279707 MEDLINE  
 DN 98279707  
 TI Microcapsules as bio-organs for somatic gene therapy.  
 AU Chang P L  
 CS Department of Pediatrics, McMaster University, Hamilton, Ontario, Canada..  
 changp@fhs.mcmaster.ca  
 SO ANNALS OF THE NEW YORK ACADEMY OF SCIENCES, (1997 Dec 31) 831 461-73.  
 Ref: 25  
 Journal code: 5NM. ISSN: 0077-8923.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199808  
 EW 19980804

L34 ANSWER 7 OF 93 MEDLINE  
 AN 1998233716 MEDLINE  
 DN 98233716  
 TI Dystrophin acts as a transplantation rejection antigen in dystrophin-deficient mice: implication for gene therapy  
 AU Ohtsuka Y; Uda K; Yamashiro Y; Yagita H; Okumura K  
 CS Department of Immunology, Juntendo University School of Medicine, Tokyo, Japan.  
 SO JOURNAL OF IMMUNOLOGY, (1998 May 1) 160 (9) 4635-40.  
 Journal code: IFB. ISSN: 0022-1767.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
 EM 199807  
 EW 19980704

L34 ANSWER 8 OF 93 MEDLINE  
 AN 1998211336 MEDLINE  
 DN 98211336  
 TI Systemic effect of human growth hormone after intramuscular injection of a single dose of a muscle-specific gene medicine.  
 AU Anwer K; Shi M; French M F; Muller S R; Chen W; Liu Q; Proctor B L; Wang J; Mumper R J; Singhal A; Rolland A P; Alila H W  
 CS GeneMedicine, Inc., The Woodlands, TX 77381-4248, USA.  
 SO HUMAN GENE THERAPY, (1998 Mar 20) 9 (5) 659-70.  
 Journal code: A12. ISSN: 1043-0342.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199808  
 EW 19980801

L34 ANSWER 9 OF 93 MEDLINE  
 AN 1998203654 MEDLINE  
 DN 98203654  
 TI Death of solid tumor cells induced by Fas ligand expressing primary myoblasts.  
 AU Hofmann A; Blau H M  
 CS Department of Molecular Pharmacology, Stanford University School of Medicine, California 94305, USA.  
 NC CA59717 (NCI)  
 HD18179 (NICHD)  
 AG09521 (NIA)  
 SO SOMATIC CELL AND MOLECULAR GENETICS, (1997 Jul) 23 (4) 249-57.  
 Journal code: UY2. ISSN: 0740-7750.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199807  
 EW 19980701

L34 ANSWER 10 OF 93 MEDLINE  
 AN 1998197324 MEDLINE  
 DN 98197324  
 TI Ex vivo gene transfer using adenovirus-mediated full-length dystrophin delivery to dystrophic muscles.  
 AU Floyd S S Jr; Clemens P R; Ontell M R; Kochanek S; Day C S; Yang J; Hauschka S D; Balkir L; Morgan J; Moreland M S; Feero G W; Epperly M;

Huard J  
 CS Department of Orthopaedic Surgery, Children's Hospital of Pittsburgh.  
 15261 USA.  
 NC AR36294 (NIAMS)  
 NS01611 (NINDS)  
 AR18860 (NIAMS)  
 SO GENE THERAPY, (1998 Jan) 5 (1) 19-30.  
 Journal code: CCE. ISSN: 0969-7128.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199806  
 EW 19980603

L34 ANSWER 11 OF 93 MEDLINE  
 AN 1998159251 MEDLINE  
 DN 98159251  
 TI **Myoblast**-mediated gene transfer to the joint.  
 AU Day C S; Kasemkijwattana C; Menetrey J; Floyd S S Jr; Booth D; Moreland M  
 S; Fu F H; Huard J  
 CS Department of Orthopaedic Surgery, Children's Hospital of Pittsburgh, PA  
 15261, USA.. jhuard+@pitt.edu  
 SO JOURNAL OF ORTHOPAEDIC RESEARCH, (1997 Nov) 15 (6) 894-903.  
 Journal code: JIQ. ISSN: 0736-0266.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199806  
 EW 19980601

L34 ANSWER 12 OF 93 MEDLINE  
 AN 1998112869 MEDLINE  
 DN 98112869  
 TI Efficiency of a high-titer retroviral vector for gene transfer into  
 skeletal **myoblasts**.  
 AU el Oakley R M; Brand N J; Burton P B; McMullen M C; Adams G B; Poznansky  
 M  
 C; Barton P J; Yacoub M H  
 CS Department of Cardiothoracic Surgery, Imperial College School of  
 Medicine,  
 National Heart and Lung Institute, London, United Kingdom.  
 SO JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY, (1998 Jan) 115 (1) 1-8.  
 Journal code: K9J. ISSN: 0022-5223.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
 EM 199804  
 EW 19980403

L34 ANSWER 13 OF 93 MEDLINE  
 AN 1998087100 MEDLINE  
 DN 98087100  
 TI Transplantation of **myoblasts** from a transgenic mouse  
 overexpressing dystrophin produced only a relatively small increase of  
 dystrophin-positive membrane.  
 AU Kinoshita I; Vilquin J T; Asselin I; Chamberlain J; Tremblay J P  
 CS Centre de Recherche en Neurobiologie, Hopital de l'Enfant-Jesus,  
 Universite Laval, Quebec, Canada.  
 SO MUSCLE AND NERVE, (1998 Jan) 21 (1) 91-103.  
 Journal code: NN9. ISSN: 0148-639X.

CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199803  
EW 19980304

L34 ANSWER 14 OF 93 MEDLINE

AN 1998030211 MEDLINE

DN 98030211

TI Feline mucopolysaccharidosis type VI: correction of glycosaminoglycan storage in **myoblasts** by retrovirus-mediated transfer of the feline N-acetylgalactosamine 4-sulfatase gene.

AU Yogalingam G; Bielicki J; Hopwood J J; Anson D S

CS Department of Chemical Pathology, Women's and Children's Hospital, North Adelaide, S.A., Australia.

SO DNA AND CELL BIOLOGY, (1997 Oct) 16 (10) 1189-94.

Journal code: AF9. ISSN: 1044-5498.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199802

L34 ANSWER 15 OF 93 MEDLINE

AN 97463304 MEDLINE

DN 97463304

TI Retroviral transfer of acid alpha-glucosidase cDNA to enzyme-deficient **myoblasts** results in phenotypic spread of the genotypic correction by both secretion and fusion [published erratum appears in Hum Gene Ther 1998 Apr 10;9(6):930].

AU Zaretsky J Z; Candotti F; Boerkoel C; Adams E M; Yewdell J W; Blaese R M; Plotz P H

CS Arthritis and Rheumatism Branch, NIAMS, National Institutes of Health, Bethesda, MD 20892, USA.

SO HUMAN GENE THERAPY, (1997 Sep 1) 8 (13) 1555-63.

Journal code: A12. ISSN: 1043-0342.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199801

L34 ANSWER 16 OF 93 MEDLINE

AN 97420223 MEDLINE

DN 97420223

TI Gene transfer and expression of human alpha-galactosidase from mouse muscle in vitro and in vivo.

AU Novo F J; Gorecki D C; Goldspink G; MacDermot K D

CS Department of Clinical Genetics, Royal Free Hospital School of Medicine, London, UK.

SO GENE THERAPY, (1997 May) 4 (5) 488-92.

Journal code: CCE. ISSN: 0969-7128.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199711

EW 19971104

L34 ANSWER 17 OF 93 MEDLINE

AN 97420222 MEDLINE

DN 97420222

TI Lipofection of a cDNA plasmid containing the dystrophin gene lowers intracellular free calcium and calcium leak channel activity in mdx myotubes.  
 AU McCarter G C; Denetclaw W F Jr; Reddy P; Steinhardt R A  
 CS Department of Molecular and Cell Biology, University of California, Berkeley 94720-3200, USA.  
 SO GENE THERAPY, (1997 May) 4 (5) 483-7.  
 Journal code: CCE. ISSN: 0969-7128.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199711  
 EW 19971104

L34 ANSWER 18 OF 93 MEDLINE  
 AN 97413202 MEDLINE  
 DN 97413202  
 TI Problems and potential for gene therapy in Duchenne muscular dystrophy.  
 AU Kakulas B A  
 CS Australian Neuromuscular Research Institute, Perth, Australia.  
 SO NEUROMUSCULAR DISORDERS, (1997 Jul) 7 (5) 319-24.  
 Journal code: BJS. ISSN: 0960-8966.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199712  
 EW 19971202

L34 ANSWER 19 OF 93 MEDLINE  
 AN 97413200 MEDLINE  
 DN 97413200  
 TI Gene transfer to muscle using herpes simplex virus-based vectors.  
 AU Huard J; Krisky D; Oligino T; Marconi P; Day C S; Watkins S C; Glorioso J C  
 CS Department of Orthopaedic Surgery, Children's Hospital of Pittsburgh, PA 15261, USA.  
 SO NEUROMUSCULAR DISORDERS, (1997 Jul) 7 (5) 299-313. Ref: 101  
 Journal code: BJS. ISSN: 0960-8966.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199712  
 EW 19971202

L34 ANSWER 20 OF 93 MEDLINE  
 AN 97353200 MEDLINE  
 DN 97353200  
 TI Immunoregulation by B7 and IL-12 gene transfer.  
 AU Kato K; Okumura K; Yagita H  
 CS Department of Immunology, Juntendo University School of Medicine, Tokyo, Japan.  
 SO LEUKEMIA, (1997 Apr) 11 Suppl 3 572-6.  
 Journal code: LEU. ISSN: 0887-6924.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals



EM 199710  
EW 19971002

L34 ANSWER 21 OF 93 MEDLINE  
AN 97345503 MEDLINE  
DN 97345503  
TI [Genetic therapy for hemophiliacs--therapeutic potential and technological limits].  
Therapie genique des hemophilies--potentialites therapeutiques et limitations technologiques.  
AU Michou A I; Christ M; Pavirani A; Mehtali M  
CS Transg`ene S.A., Strasbourg, France.  
SO TRANSFUSION CLINIQUE ET BIOLOGIQUE, (1997) 4 (3) 251-61. Ref: 25  
Journal code: BX0. ISSN: 1246-7820.  
CY France  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA French  
FS Priority Journals  
EM 199710

L34 ANSWER 22 OF 93 MEDLINE  
AN 97336859 MEDLINE  
DN 97336859  
TI Human gene therapy with myoblast transfer.  
AU Law P K; Goodwin T G; Fang Q; Quinley T; Vastagh G; Hall T; Jackson T; Deering M B; Duggirala V; Larkin C; Florendo J A; Li L M; Yoo T J; Chase N; Neel M; Krahn T; Holcomb R L  
CS Cell Therapy Research Foundation, Memphis, Tennessee 38117, USA.  
SO TRANSPLANTATION PROCEEDINGS, (1997 Jun) 29 (4) 2234-7.  
Journal code: WE9. ISSN: 0041-1345.  
CY United States  
DT (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)  
LA English  
FS Priority Journals; Cancer Journals  
EM 199709  
EW 19970903

L34 ANSWER 23 OF 93 MEDLINE  
AN 97251340 MEDLINE  
DN 97251340  
TI Chemotaxis of skeletal muscle satellite cells.  
AU Bischoff R  
CS Department of Anatomy and Neurobiology, Washington University School of Medicine, St. Louis, MO 63110, USA.  
SO DEVELOPMENTAL DYNAMICS, (1997 Apr) 208 (4) 505-15.  
Journal code: A9U. ISSN: 1058-8388.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199710  
EW 19971002

L34 ANSWER 24 OF 93 MEDLINE  
AN 97238910 MEDLINE  
DN 97238910  
TI Marrow stromal cells as stem cells for nonhematopoietic tissues.  
AU Prockop D J

CS Center for Gene Therapy, Allegheny University of the Health Sciences,  
MCP-Hahnemann School of Medicine, 245 North 15 Street, Mail Stop 421,  
Philadelphia, PA 19102, USA.. prockop@allegheny.edu

SO SCIENCE, (1997 Apr 4) 276 (5309) 71-4. Ref: 32  
Journal code: UJ7. ISSN: 0036-8075.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)

LA English

FS Priority Journals; Cancer Journals

EM 199706

EW 19970604

  

L34 ANSWER 25 OF 93 MEDLINE

AN 97208915 MEDLINE

DN 97208915

TI Long-term control of erythropoietin secretion by doxycycline in mice  
transplanted with engineered primary myoblasts [see comments].

CM Comment in: Nat Med 1997 Mar;3(3):278-9

AU Bohl D; Naffakh N; Heard J M

CS Laboratoire Retrovirus et Transfert Genetique, CNRS URA 1157, Institut  
Pasteur, Paris, France.

SO NATURE MEDICINE, (1997 Mar) 3 (3) 299-305.  
Journal code: CG5. ISSN: 1078-8956.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199706

  

L34 ANSWER 26 OF 93 MEDLINE

AN 97207026 MEDLINE

DN 97207026

TI LacZ gene transfer to skeletal muscle using a replication-defective  
herpes simplex virus type 1 mutant vector.

AU Huard J; Akkaraju G; Watkins S C; Pike-Cavalcoli M; Glorioso J C

CS Rangos Research Center in Musculoskeletal Research Center (MRSC) of the  
Department of Orthopaedic Surgery, University of Pittsburgh, School of  
Medicine, PA 15213, USA.

SO HUMAN GENE THERAPY, (1997 Mar 1) 8 (4) 439-52.  
Journal code: A12. ISSN: 1043-0342.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199707

EW 19970702

  

L34 ANSWER 27 OF 93 MEDLINE

AN 97207019 MEDLINE

DN 97207019

TI Viral gene delivery to skeletal muscle: insights on maturation-dependent  
loss of fiber infectivity for adenovirus and herpes simplex type 1 viral  
vectors.

AU Feero W G; Rosenblatt J D; Huard J; Watkins S C; Epperly M; Clemens P R;  
Kochanek S; Glorioso J C; Partridge T A; Hoffman E P

CS Department of Human Genetics, University of Pittsburgh School of  
Medicine,  
PA 15261, USA.

SO HUMAN GENE THERAPY, (1997 Mar 1) 8 (4) 371-80.  
Journal code: A12. ISSN: 1043-0342.

CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199707  
 EW 19970702

L34 ANSWER 28 OF 93 MEDLINE  
 AN 97193369 MEDLINE  
 DN 97193369  
 TI First human myoblast transfer therapy continues to show dystrophin after 6 years.  
 AU Law P K; Goodwin T G; Fang Q; Hall T L; Quinley T; Vastagh G; Duggirala V;  
 Larkin C; Florendo J A; Li L; Jackson T; Yoo T J; Chase N; Neel M; Krahn T; Holcomb R  
 CS Cell Therapy Research Foundation, Memphis, TN 38117, USA.  
 SO CELL TRANSPLANTATION, (1997 Jan-Feb) 6 (1) 95-100.  
 Journal code: B02. ISSN: 0963-6897.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199708  
 EW 19970803

L34 ANSWER 29 OF 93 MEDLINE  
 AN 97171202 MEDLINE  
 DN 97171202  
 TI Progress, problems, and prospects for gene therapy in muscle.  
 AU Brown R H; Miller J B  
 CS Neuromuscular Laboratory, Massachusetts General Hospital, Charlestown 02129, USA.  
 SO CURRENT OPINION IN RHEUMATOLOGY, (1996 Nov) 8 (6) 539-43. Ref: 29  
 Journal code: AVG. ISSN: 1040-8711.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199705  
 EW 19970504

L34 ANSWER 30 OF 93 MEDLINE  
 AN 97144169 MEDLINE  
 DN 97144169  
 TI Two-step delivery of retroviruses to postmitotic, terminally differentiated cells.  
 AU Ito M; Kedes L  
 CS Institute for Genetic Medicine, University of Southern California School of Medicine, Los Angeles 90033, USA.  
 SO HUMAN GENE THERAPY, (1997 Jan 1) 8 (1) 57-63.  
 Journal code: A12. ISSN: 1043-0342.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199705  
 EW 19970505

L34 ANSWER 31 OF 93 MEDLINE

AN 97088610 MEDLINE  
 DN 97088610  
 TI Amelioration of the dystrophic phenotype of mdx mice using a truncated utrophin transgene [see comments].  
 CM Comment in: Nature 1996 Nov 28;384(6607):308-9  
 AU Tinsley J M; Potter A C; Phelps S R; Fisher R; Trickett J I; Davies K E  
 CS Genetics Laboratory, Department of Biochemistry, Oxford, UK.  
 SO NATURE, (1996 Nov 28) 384 (6607) 349-53.  
 Journal code: NSC. ISSN: 0028-0836.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199702  
 EW 19970204

L34 ANSWER 32 OF 93 MEDLINE  
 AN 97088295 MEDLINE  
 DN 97088295  
 TI Tissue-engineered skeletal muscle organoids for reversible gene therapy.  
 AU Vandeburgh H; Del Tatto M; Shansky J; Lemaire J; Chang A; Payumo F; Lee P; Goodyear A; Raven L  
 CS Department of Pathology, Brown University School of Medicine, Providence, RI 02906, USA.  
 SO HUMAN GENE THERAPY, (1996 Nov 10) 7 (17) 2195-200.  
 Journal code: A12. ISSN: 1043-0342.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199705  
 EW 19970502

L34 ANSWER 33 OF 93 MEDLINE  
 AN 97088289 MEDLINE  
 DN 97088289  
 TI Central nervous system delivery of recombinant ciliary neurotrophic factor  
 by polymer encapsulated differentiated C2C12 myoblasts.  
 AU Deglon N; Heyd B; Tan S A; Joseph J M; Zurn A D; Aebischer P  
 CS Gene Therapy Center, Centre Hospitalier Universitaire Vaudois, Lausanne University Medical School, Switzerland.  
 SO HUMAN GENE THERAPY, (1996 Nov 10) 7 (17) 2135-46.  
 Journal code: A12. ISSN: 1043-0342.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199705

L34 ANSWER 34 OF 93 MEDLINE  
 AN 97087690 MEDLINE  
 DN 97087690  
 TI Quantitative estimation of dystrophin protein: a sensitive and convenient "two-antibody sandwich" ELISA.  
 AU Ishikawa Y; Ishikawa Y; Minami R  
 CS Department of Pediatrics, National Sanatorium Yakumo Hospital, Japan.  
 SO TOHOKU JOURNAL OF EXPERIMENTAL MEDICINE, (1996 Sep) 180 (1) 57-63.  
 Journal code: VTF. ISSN: 0040-8727.  
 CY Japan  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English

FS Priority Journals  
 EM 199705  
 EW 19970502

L34 ANSWER 35 OF 93 MEDLINE  
 AN 97041574 MEDLINE  
 DN 97041574  
 TI Construction of human factor IX expression vectors in retroviral vector frames optimized for muscle cells.  
 AU Wang J M; Zheng H; Sugahara Y; Tan J; Yao S N; Olson E; Kurachi K  
 CS Department of Human Genetics, University of Michigan Medical School, Ann Arbor 48109, USA.  
 NC HL 53713 (NHLBI)  
 HL 38644 (NHLBI)  
 5-P60-AR20557 (NIAMS)  
 SO HUMAN GENE THERAPY, (1996 Sep 10) 7 (14) 1743-56.  
 Journal code: A12. ISSN: 1043-0342.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199703  
 EW 19970304

L34 ANSWER 36 OF 93 MEDLINE  
 AN 97035616 MEDLINE  
 DN 97035616  
 TI [Gene therapy of neurological diseases].  
 Therapie genique des maladies neurologiques.  
 AU Kahn A; Haase G; Akli S; Guidotti J E  
 CS Institut Cochin de Genetique Moleculaire, Unite 129 de l'INSERM, CHU Cochin, Paris, France.  
 SO COMPTES RENDUS DES SEANCES DE LA SOCIETE DE BIOLOGIE ET DE SES FILIALES, (1996) 190 (1) 9-11.  
 Journal code: CA2. ISSN: 0037-9026.  
 CY France  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA French  
 FS Priority Journals  
 EM 199702  
 EW 19970204

L34 ANSWER 37 OF 93 MEDLINE  
 AN 97018144 MEDLINE  
 DN 97018144  
 TI Myoblast gene therapy in canine mucopolysaccharidosis. I: Abrogation by an immune response to alpha-L-iduronidase.  
 AU Shull R M; Lu X; McEntee M F; Bright R M; Pepper K A; Kohn D B  
 CS University of Tennessee College of Veterinary Medicine, Department of Pathology, Knoxville 37996, USA.  
 NC DK-38857 (NIDDK)  
 SO HUMAN GENE THERAPY, (1996 Aug 20) 7 (13) 1595-603.  
 Journal code: A12. ISSN: 1043-0342.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199703  
 EW 19970301

L34 ANSWER 38 OF 93 MEDLINE  
 AN 97001209 MEDLINE

DN 97001209  
 TI Prolonged expression of therapeutic levels of human granulocyte colony-stimulating factor in rats following gene transfer to skeletal muscle.  
 AU Bonham L; Palmer T; Miller A D  
 CS Fred Hutchinson Cancer Research Center, Seattle, WA 98109, USA.  
 NC HL08793 (NHLBI)  
 HL08694 (NHLBI)  
 HL36444 (NHLBI)  
 SO HUMAN GENE THERAPY, (1996 Aug 1) 7 (12) 1423-9.  
 Journal code: A12. ISSN: 1043-0342.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199703  
 EW 19970303

L34 ANSWER 39 OF 93 MEDLINE  
 AN 96423269 MEDLINE  
 DN 96423269  
 TI Synthesis and processing of genetically modified human proinsulin by rat **myoblast** primary cultures.  
 AU Simonson G D; Groskreutz D J; Gorman C M; MacDonald M J  
 CS University of Wisconsin Childrens Diabetes Center, Madison 53706, USA.  
 SO HUMAN GENE THERAPY, (1996 Jan) 7 (1) 71-8.  
 Journal code: A12. ISSN: 1043-0342.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199702  
 EW 19970204

L34 ANSWER 40 OF 93 MEDLINE  
 AN 96423268 MEDLINE  
 DN 96423268  
 TI Growth retardation--an unexpected outcome from growth hormone **gene therapy** in normal mice with microencapsulated **myoblasts**.  
 AU Al-Hendy A; Hortelano G; Tannenbaum G S; Chang P L  
 CS Department of Pediatrics, McMaster University, Hamilton, Ontario, Canada.  
 SO HUMAN GENE THERAPY, (1996 Jan) 7 (1) 61-70.  
 Journal code: A12. ISSN: 1043-0342.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199702  
 EW 19970204

L34 ANSWER 41 OF 93 MEDLINE  
 AN 96392370 MEDLINE  
 DN 96392370  
 TI Local production of the p40 subunit of interleukin 12 suppresses T-helper 1-mediated immune responses and prevents allogeneic **myoblast** rejection.  
 AU Kato K; Shimozato O; Hoshi K; Wakimoto H; Hamada H; Yagita H; Okumura K  
 CS Department of Immunology, Juntendo University School of Medicine, Tokyo, Japan.  
 SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1996 Aug 20) 93 (17) 9085-9.  
 Journal code: PV3. ISSN: 0027-8424.

CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; Cancer Journals  
EM 199701  
EW 19970104

L34 ANSWER 42 OF 93 MEDLINE  
AN 96381792 MEDLINE  
DN 96381792  
TI Expression of full-length human dystrophin cDNA in mdx mouse muscle by HVJ-liposome injection.  
AU Yanagihara I; Inui K; Dickson G; Turner G; Piper T; Kaneda Y; Okada S  
CS Department of Pediatrics, Osaka University, Faculty of Medicine, Japan.  
SO GENE THERAPY, (1996 Jun) 3 (6) 549-53.  
Journal code: CCE. ISSN: 0969-7128.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199701  
EW 19970104

L34 ANSWER 43 OF 93 MEDLINE  
AN 96342122 MEDLINE  
DN 96342122  
TI Expression of factor VII by muscle cells in vitro and in vivo following direct gene transfer: modelling **gene therapy** for haemophilia [published erratum appears in Gene Ther 1996 Aug;3(8):740].  
AU Miller G; Steinbrecher R A; Murdock P J; Tuddenham E G; Lee C A; Pasi K J;  
Goldspink G  
CS Department of Haematology, Royal Free Hospital and School of Medicine, London, UK.  
SO GENE THERAPY, (1995 Dec) 2 (10) 736-42.  
Journal code: CCE. ISSN: 0969-7128.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199705

L34 ANSWER 44 OF 93 MEDLINE  
AN 96247511 MEDLINE  
DN 96247511  
TI Delivery of human factor IX in mice by encapsulated recombinant **myoblasts**: a novel approach towards allogeneic **gene therapy** of hemophilia B.  
AU Hortelano G; Al-Hendy A; Ofosu F A; Chang P L  
CS Department of Pediatrics, McMaster University, Hamilton, Ontario, Canada.  
SO BLOOD, (1996 Jun 15) 87 (12) 5095-103.  
Journal code: A8G. ISSN: 0006-4971.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
EM 199610

L34 ANSWER 45 OF 93 MEDLINE  
AN 96097128 MEDLINE  
DN 96097128  
TI Retroviral-mediated gene transfer and expression of human lipoprotein

lipase in somatic cells.

AU Lewis M E; Forsythe I J; Marth J D; Brunzell J D; Hayden M R; Humphries R K

CS Department of Medical Genetics, University of British Columbia, Vancouver, Canada..

NC DK02456 (NIDDK)

SO HUMAN GENE THERAPY, (1995 Jul) 6 (7) 853-63.  
Journal code: A12. ISSN: 1043-0342.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199602

  

L34 ANSWER 46 OF 93 MEDLINE

AN 96064114 MEDLINE

DN 96064114

TI A plasmid-based self-amplifying Sindbis virus vector.

AU Herweijer H; Latendresse J S; Williams P; Zhang G; Danko I; Schlesinger S; Wolff J A

CS Department of Pediatrics and Medical Genetics, University of Wisconsin, Madison 53705, USA.

NC A111377 (NIAID)  
DK42709 (NIDDK)

SO HUMAN GENE THERAPY, (1995 Sep) 6 (9) 1161-7.  
Journal code: A12. ISSN: 1043-0342.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199604

  

L34 ANSWER 47 OF 93 MEDLINE

AN 96050959 MEDLINE

DN 96050959

TI Cultured human **myoblasts** and myotubes show markedly different transducibility by replication-defective adenovirus recombinants.

AU Acsadi G; Jani A; Huard J; Blaschuk K; Massie B; Holland P; Lochmuller H; Karpatis G

CS Montreal Neurological Institute, McGill University, Quebec, Canada..

SO GENE THERAPY, (1994 Sep) 1 (5) 338-40.  
Journal code: CCE. ISSN: 0969-7128.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199602

  

L34 ANSWER 48 OF 93 MEDLINE

AN 96050927 MEDLINE

DN 96050927

TI Primary **myoblast**-mediated gene transfer: persistent expression of human factor IX in mice.

AU Yao S N; Smith K J; Kurachi K

CS Department of Human Genetics, University of Michigan Medical School, Ann Arbor 48109-0618, USA.

NC HL48312 (NHLBI)  
HL38644 (NHLBI)

SO GENE THERAPY, (1994 Mar) 1 (2) 99-107.  
Journal code: CCE. ISSN: 0969-7128.

CY ENGLAND: United Kingdom



DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199602

L34 ANSWER 49 OF 93 MEDLINE  
 AN 96050911 MEDLINE  
 DN 96050911  
 TI Efficient gene delivery and expression in mammalian cells using DNA coupled with perfringolysin O.  
 AU Gottschalk S; Tweten R K; Smith L C; Woo S L  
 CS Department of Cell Biology, Howard Hughes Medical Institute, Baylor College of Medicine, Houston, Texas 77030, USA..  
 NC HL 50422 (NHLBI)  
 AI 32097 (NIAID)  
 SO GENE THERAPY, (1995 Sep) 2 (7) 498-503.  
 Journal code: CCE. ISSN: 0969-7128.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199602

L34 ANSWER 50 OF 93 MEDLINE  
 AN 96032811 MEDLINE  
 DN 96032811  
 TI The fate of **myoblasts** following transplantation into mature muscle.  
 AU Rando T A; Pavlath G K; Blau H M  
 CS Department of Molecular Pharmacology, Stanford University Medical Center, California 94305-5332, USA..  
 NC HD18179 (NICHD)  
 SO EXPERIMENTAL CELL RESEARCH, (1995 Oct) 220 (2) 383-9.  
 Journal code: EPB. ISSN: 0014-4827.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199601

L34 ANSWER 51 OF 93 MEDLINE  
 AN 96008222 MEDLINE  
 DN 96008222  
 TI **Gene therapy** of rheumatoid arthritis via cytokine regulation: future perspectives.  
 AU Chernajovsky Y; Feldmann M; Maini R N  
 CS Kennedy Institute of Rheumatology, Hammersmith, London, UK..  
 SO BRITISH MEDICAL BULLETIN, (1995 Apr) 51 (2) 503-16. Ref: 41  
 Journal code: B4G. ISSN: 0007-1420.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 EM 199601

L34 ANSWER 52 OF 93 MEDLINE  
 AN 95379904 MEDLINE  
 DN 95379904  
 TI **Myoblast** transfer in the treatment of Duchenne's muscular dystrophy [see comments].  
 CM Comment in: N Engl J Med 1995 Sep 28;333(13):871-3  
 AU Mendell J R; Kissel J T; Amato A A; King W; Signore L; Prior T W; Sahenk

Z; Benson S; McAndrew P E; Rice R; et al  
 CS Department of Neurology, Ohio State University, Columbus 43210, USA..  
 NC MOL-RR-00034 (NCRR)  
 SO NEW ENGLAND JOURNAL OF MEDICINE, (1995 Sep 28) 333 (13) 832-8.  
 Journal code: NOW. ISSN: 0028-4793.  
 CY United States  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
 EM 199512

L34 ANSWER 53 OF 93 MEDLINE  
 AN 95370847 MEDLINE  
 DN 95370847  
 TI Cellular and molecular reactions in mouse muscles after **myoblast** implantation.  
 AU Irintchev A; Zweyer M; Wernig A  
 CS Department of Physiology, University of Bonn, Germany..  
 SO JOURNAL OF NEUROCYTOLOGY, (1995 Apr) 24 (4) 319-31.  
 Journal code: JB3. ISSN: 0300-4864.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199511

L34 ANSWER 54 OF 93 MEDLINE  
 AN 95322638 MEDLINE  
 DN 95322638  
 TI **Myoblast** transfer and **gene therapy** in muscular dystrophies.  
 AU Pagel C N; Morgan J E  
 CS Department of Histopathology, Charing Cross and Westminster Medical School, London, England..  
 SO MICROSCOPY RESEARCH AND TECHNIQUE, (1995 Apr 15) 30 (6) 469-79. Ref: 107  
 Journal code: BAG. ISSN: 1059-910X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, ACADEMIC)  
 LA English  
 FS Priority Journals  
 EM 199510

L34 ANSWER 55 OF 93 MEDLINE  
 AN 95285149 MEDLINE  
 DN 95285149  
 TI **Myoblast-based gene therapies.**  
 AU Partridge T A; Davies K E  
 CS MRC Clinical Sciences Centre, Royal Postgraduate Medical School, Hammersmith Hospital, London, UK..  
 SO BRITISH MEDICAL BULLETIN, (1995 Jan) 51 (1) 123-37. Ref: 73  
 Journal code: B4G. ISSN: 0007-1420.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, ACADEMIC)  
 LA English  
 EM 199509

L34 ANSWER 56 OF 93 MEDLINE

AN 95277892 MEDLINE  
 DN 95277892  
 TI Effects of beta 1-integrin antisense phosphorothioate-modified oligonucleotide on **myoblast** behaviour in vitro.  
 AU Carraro U; Bruson A; Catani C; Dalla Libera L; Massimino M L; Rizzi C; Rossini K; Sandri M; Cantini M  
 CS University of Padova, CNR Unit for Muscle Biology and Physiopathology, Department of Biomedical Sciences, Italy..  
 SO CELL BIOCHEMISTRY AND FUNCTION, (1995 Jun) 13 (2) 99-104.  
 Journal code: C9W. ISSN: 0263-6484.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199509

L34 ANSWER 57 OF 93 MEDLINE  
 AN 95256334 MEDLINE  
 DN 95256334  
 TI Dermal fibroblasts convert to a myogenic lineage in mdx mouse muscle.  
 AU Gibson A J; Karasinski J; Relvas J; Moss J; Sherratt T G; Strong P N; Watt D J  
 CS Department of Anatomy, Charing Cross & Westminster Medical School, UK..  
 SO JOURNAL OF CELL SCIENCE, (1995 Jan) 108 ( Pt 1) 207-14.  
 Journal code: HNK. ISSN: 0021-9533.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199508

L34 ANSWER 58 OF 93 MEDLINE  
 AN 95252292 MEDLINE  
 DN 95252292  
 TI Correction of the growth defect in dwarf mice with nonautologous microencapsulated **myoblasts**--an alternate approach to somatic **gene therapy**.  
 AU al-Hendy A; Hortelano G; Tannenbaum G S; Chang P L  
 CS Department of Pediatrics, McMaster University, Hamilton, Ontario, Canada.  
 SO HUMAN GENE THERAPY, (1995 Feb) 6 (2) 165-75.  
 Journal code: A12. ISSN: 1043-0342.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199508

L34 ANSWER 59 OF 93 MEDLINE  
 AN 95239187 MEDLINE  
 DN 95239187  
 TI Liposome-mediated gene transfer into normal and dystrophin-deficient mouse **myoblasts**.  
 AU Trivedi R A; Dickson G  
 CS Department of Experimental Pathology, UMDS, Guys Hospital, London Bridge, England..  
 SO JOURNAL OF NEUROCHEMISTRY, (1995 May) 64 (5) 2230-8.  
 Journal code: JAV. ISSN: 0022-3042.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English

FS Priority Journals  
EM 199507

L34 ANSWER 60 OF 93 MEDLINE  
AN 95226524 MEDLINE  
DN 95226524  
TI Delivery of a secretable adenosine deaminase through microcapsules--a novel approach to somatic gene therapy.  
AU Hughes M; Vassilakos A; Andrews D W; Hortelano G; Belmont J W; Chang P L  
CS Department of Pediatrics, McMaster University, Hamilton, Ontario, Canada.  
SO HUMAN GENE THERAPY, (1994 Dec) 5 (12) 1445-55.  
Journal code: A12. ISSN: 1043-0342.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199507

L34 ANSWER 61 OF 93 MEDLINE  
AN 95221635 MEDLINE  
DN 95221635  
TI Myoblast transfer of human erythropoietin gene in a mouse model of renal failure.  
AU Hamamori Y; Samal B; Tian J; Kedes L  
CS Institute for Genetic Medicine, University of Southern California School of Medicine, Los Angeles 90033, USA..  
SO JOURNAL OF CLINICAL INVESTIGATION, (1995 Apr) 95 (4) 1808-13.  
Journal code: HS7. ISSN: 0021-9738.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
EM 199507

L34 ANSWER 62 OF 93 MEDLINE  
AN 95216104 MEDLINE  
DN 95216104  
TI Multiple vectors effectively achieve gene transfer in a murine cardiac transplantation model. Immunosuppression with TGF-beta 1 or vIL-10.  
AU Qin L; Chavin K D; Ding Y; Favaro J P; Woodward J E; Lin J; Tahara H; Robbins P; Shaked A; Ho D Y; et al  
CS Department of Microbiology, Medical University of South Carolina, Charleston 29425, USA..  
NC DK44935 (NIDDK)  
SO TRANSPLANTATION, (1995 Mar 27) 59 (6) 809-16.  
Journal code: WEJ. ISSN: 0041-1337.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; Cancer Journals  
EM 199507

L34 ANSWER 63 OF 93 MEDLINE  
AN 95147827 MEDLINE  
DN 95147827  
TI Molecular diagnosis and modern management of Duchenne muscular dystrophy.  
AU Miller R G; Hoffman E P  
CS Department of Neurology, California Pacific Medical Center, San Francisco..  
SO NEUROLOGIC CLINICS, (1994 Nov) 12 (4) 699-725. Ref: 100  
Journal code: NEU. ISSN: 0733-8619.

CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, ACADEMIC)  
 LA English  
 FS Priority Journals  
 EM 199505

L34 ANSWER 64 OF 93 MEDLINE  
 AN 95114606 MEDLINE  
 DN 95114606  
 TI Macrophage-released factor stimulates selectively myogenic cells in  
 primary muscle culture.  
 AU Cantini M; Carraro U  
 CS Department of Biomedical Sciences, University of Padua, Italy..  
 SO JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY, (1995 Jan) 54 (1)  
 121-8.  
 Journal code: JBR. ISSN: 0022-3069.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199504

L34 ANSWER 65 OF 93 MEDLINE  
 AN 95114096 MEDLINE  
 DN 95114096  
 TI Targeted expression of transforming growth factor-beta 1 in intracardiac  
 grafts promotes vascular endothelial cell DNA synthesis.  
 AU Koh G Y; Kim S J; Klug M G; Park K; Soonpaa M H; Field L J  
 CS Krannert Institute of Cardiology, Indiana University School of Medicine,  
 Indianapolis 46202-4800.  
 NC HL-45453 (NHLBI)  
 SO JOURNAL OF CLINICAL INVESTIGATION, (1995 Jan) 95 (1) 114-21.  
 Journal code: HS7. ISSN: 0021-9738.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
 EM 199504

L34 ANSWER 66 OF 93 MEDLINE  
 AN 95102868 MEDLINE  
 DN 95102868  
 TI **Gene therapy** for muscle diseases.  
 AU Coover D D; Burghes A H  
 CS Ohio State University, Columbus..  
 SO CURRENT OPINION IN NEUROLOGY, (1994 Oct) 7 (5) 463-70. Ref: 74  
 Journal code: BX4. ISSN: 1350-7540.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199504

L34 ANSWER 67 OF 93 MEDLINE  
 AN 95031349 MEDLINE  
 DN 95031349  
 TI Gene transfer for transplantation. Prolongation of allograft survival  
 with  
 transforming growth factor-beta 1.

SO BRAIN RESEARCH, (1992 Oct 2) 592 (1-2) 326-32.  
Journal code: B5L. ISSN: 0006-8993.  
CY Netherlands  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199303

L28 ANSWER 21 OF 31 MEDLINE  
AN 93049684 MEDLINE  
DN 93049684  
TI Antiinflammatory and analgesic activity of a non-peptide **substance P receptor** antagonist.  
AU Nagahisa A; Kanai Y; Suga O; Taniguchi K; Tsuchiya M; Lowe J A 3d; Hess H J  
CS Department of Medicinal Biology, Central Research Division, Pfizer Inc., Aichi, Japan..  
SO EUROPEAN JOURNAL OF PHARMACOLOGY, (1992 Jul 7) 217 (2-3) 191-5.  
Journal code: EN6. ISSN: 0014-2999.  
CY Netherlands  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199302

L28 ANSWER 22 OF 31 MEDLINE  
AN 92390724 MEDLINE  
DN 92390724  
TI Hyperalgesia mediated by spinal glutamate or **substance P receptor** blocked by spinal cyclooxygenase inhibition.  
AU Malmberg A B; Yaksh T L  
CS Department of Anesthesiology, University of California-San Diego, La Jolla  
92093-0818.  
NC DA02110 (NIDA)  
SO SCIENCE, (1992 Aug 28) 257 (5074) 1276-9.  
Journal code: UJ7. ISSN: 0036-8075.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; Cancer Journals  
EM 199212

L28 ANSWER 23 OF 31 MEDLINE  
AN 91204117 MEDLINE  
DN 91204117  
TI Neurochemical mediators of the behavioural effects of receptor-selective substance P agonists administered intrathecally in the rat.  
AU Papir-Kricheli D; Gilon C; Chorev M; Selinger Z; Devor M  
CS Department of Zoology, Hebrew University of Jerusalem, Israel..  
SO NEUROPHARMACOLOGY, (1990 Nov) 29 (11) 1055-65.  
Journal code: NZB. ISSN: 0028-3908.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199107

L28 ANSWER 24 OF 31 MEDLINE  
AN 89310451 MEDLINE  
DN 89310451  
TI Subsensitivity of serotonin and **substance P receptors** involved in nociception after repeated administration of

sympathetic nerve activity in conscious rats. Implications for  
60  
AU Unger T; Becker H; Petty M; Demmert G; Schneider B; Ganten D; Lang R E  
SO CIRCULATION RESEARCH, (1985 Apr) 56 (4) 563-75.  
Journal code: DAJ. ISSN: 0009-7330.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198507

L28 ANSWER 29 OF 31 MEDLINE  
AN 83219305 MEDLINE  
DN 83219305  
TI Autoradiographic distribution of **substance P**  
**receptors** in rat central nervous system.  
AU Quirion R; Shults C W; Moody T W; Pert C B; Chase T N; O'Donohue T L  
SO NATURE, (1983 Jun 23-29) 303 (5919) 714-6.  
Journal code: NSC. ISSN: 0028-0836.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; Cancer Journals  
EM 198309

L28 ANSWER 30 OF 31 MEDLINE  
AN 83090083 MEDLINE  
DN 83090083  
TI Substance P reduces tail-flick latency: implications for chronic  
pain syndromes.  
AU Yasphal K; Wright D M; Henry J L  
SO PAIN, (1982 Oct) 14 (2) 155-67.  
Journal code: OPF. ISSN: 0304-3959.  
CY Netherlands  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198304

L28 ANSWER 31 OF 31 MEDLINE  
AN 80254698 MEDLINE  
DN 80254698  
TI Specific binding of 3H-substance P to rat brain membranes.  
AU Hanley M R; Sandberg B E; Lee C M; Iversen L L; Brundish D E; Wade R  
SO NATURE, (1980 Aug 21) 286 (5775) 810-2.  
Journal code: NSC. ISSN: 0028-0836.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198012

=> s (11 or NK-1)

14021 NK  
36 NKS  
14035 NK  
(NK OR NKS)  
1990012 1  
711 NK-1  
(NK(W)1)  
L29 14667 (L1 OR NK-1)

=> S Therapy

1521683 THERAPY  
17501 THERAPIES  
L30 1526195 THERAPY  
(THERAPY OR THERAPIES)  
75% OF LIMIT FOR TOTAL ANSWERS REACHED

=> d his

(FILE 'HOME' ENTERED AT 12:06:01 ON 11 MAR 1999)

FILE 'MEDLINE' ENTERED AT 12:06:07 ON 11 MAR 1999

L1 14388 S (SUBSTANCE P)  
L2 914806 S (BLOCK? OR INHIBIT?)  
L3 423130 S (RECEPTOR)  
L4 8396 S (GENE THERAPY)  
L5 4498 S L1 AND L3  
L6 0 S L5 AND L4  
L7 1 S L1 AND L4  
L8 148499 S PAIN  
L9 974 S L1 AND L8  
L10 367 S L9 AND L2  
L11 0 S L4 AND L9  
L12 328 S L5 AND L9  
L13 0 S L5 AND L4  
L14 18 S L8 AND L4  
L15 0 S L14 AND L5  
L16 182 S L1 AND L2 AND L3 AND L8  
L17 261115 S PEPTIDE  
L18 1328 S L1 AND L3 AND L2 AND L17  
L19 5509 S L1 AND L2  
L20 2640 S L19 AND L17  
L21 644 S (PEPTIDE INHIBITOR)  
L22 2 S L19 AND L21  
L23 2 S L1 AND L21  
L24 479 S (SUBSTANCE P RECEPTOR)  
L25 0 S L24 AND L21  
L26 70 S (SUBSTANCE P ANALOG)  
L27 0 S L24 AND L4  
L28 31 S L24 AND L8  
L29 14667 S (L1 OR NK-1)  
L30 1526195 S THERAPY

=> s 18 and 130

L31 57789 L8 AND L30

=> s 129 and 131

L32 146 L29 AND L31

=> d 101-146

L32 ANSWER 101 OF 146 MEDLINE  
AN 92217064 MEDLINE  
DN 92217064  
TI Cutaneous sensory stimulation leading to facial flushing and release of calcitonin gene-related peptide.  
AU Goadsby P J; Edvinsson L; Ekman R  
CS Department of Neurology, Prince Henry Hospital, Sydney, Australia..



SO CEPHALALGIA, (1992 Feb) 12 (1) 53-6.  
 Journal code: CQP. ISSN: 0333-1024.  
 CY Norway  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199207

L32 ANSWER 102 OF 146 MEDLINE  
 AN 92121549 MEDLINE  
 DN 92121549  
 TI Topical capsaicin for treatment of hemodialysis-related pruritus.  
 AU Breneman D L; Cardone J S; Blumsack R F; Lather R M; Searle E A; Pollack  
 V  
 E  
 CS Department of Dermatology, University of Cincinnati Medical Center, OH..  
 SO JOURNAL OF THE AMERICAN ACADEMY OF DERMATOLOGY, (1992 Jan) 26 (1) 91-4.  
 Journal code: HVG. ISSN: 0190-9622.  
 CY United States  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA English  
 FS Priority Journals  
 EM 199204

L32 ANSWER 103 OF 146 MEDLINE  
 AN 92063529 MEDLINE  
 DN 92063529  
 TI Treatment of arthritis with topical capsaicin: a double-blind trial.  
 AU Deal C L; Schnitzer T J; Lipstein E; Seibold J R; Stevens R M; Levy M D;  
 Albert D; Renold F  
 CS Case Western Reserve University, Cleveland, Ohio..  
 SO CLINICAL THERAPEUTICS, (1991 May-Jun) 13 (3) 383-95.  
 Journal code: CPE. ISSN: 0149-2918.  
 CY United States  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (MULTICENTER STUDY)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA English  
 FS Priority Journals  
 EM 199203

L32 ANSWER 104 OF 146 MEDLINE  
 AN 92024268 MEDLINE  
 DN 92024268  
 TI Topical capsaicin in dermatologic and peripheral pain disorders.  
 AU Rumsfield J A; West D P  
 CS Department of Pharmacy Practice, Colleges of Pharmacy, University of  
 Illinois, Chicago 60612..  
 SO DICP, (1991 Apr) 25 (4) 381-7. Ref: 43  
 Journal code: XS4. ISSN: 1042-9611.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199201

L32 ANSWER 105 OF 146 MEDLINE  
 AN 91270937 MEDLINE

DN 91270937  
 TI Neurokinin and NMDA antagonists (but not a kainic acid antagonist) are antinociceptive in the mouse formalin model.  
 AU Murray C W; Cowan A; Larson A A  
 CS Department of Veterinary Biology, University of Minnesota, St. Paul 55108..  
 NC DA04090 (NIDA)  
 DA04190 (NIDA)  
 DA00124 (NIDA)  
 +  
 SO PAIN, (1991 Feb) 44 (2) 179-85.  
 Journal code: OPF. ISSN: 0304-3959.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199109

L32 ANSWER 106 OF 146 MEDLINE  
 AN 91204301 MEDLINE  
 DN 91204301  
 TI Neuropeptide converting enzyme activities in CSF of low back pain patients.  
 AU Hyyppa M T; Alaranta H; Lahtela K; Nykvist F; Hurme M; Nyberg F; Le Greves  
 P; Sakurada T; Terenius L  
 CS Rehabilitation Research Centre of the Social Insurance Institution, Turku, Finland.  
 SO PAIN, (1990 Nov) 43 (2) 163-8.  
 Journal code: OPF. ISSN: 0304-3959.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199107

L32 ANSWER 107 OF 146 MEDLINE  
 AN 91094513 MEDLINE  
 DN 91094513  
 TI Effect of intrathecal injection of pertussis toxin on substance P, norepinephrine and serotonin contents in various neural structures of arthritic rats.  
 AU Garzon J; Lerida M; Sanchez-Blazquez P  
 CS Cajal Institute, C.S.I.C., Madrid, Spain..  
 SO LIFE SCIENCES, (1990) 47 (21) 1915-23.  
 Journal code: L62. ISSN: 0024-3205.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199104

L32 ANSWER 108 OF 146 MEDLINE  
 AN 91067205 MEDLINE  
 DN 91067205  
 TI Treatment of reflex sympathetic dystrophy with topical capsaicin. Case report.  
 AU Cheshire W P; Snyder C R  
 CS Department of Neurology, University of North Carolina, Chapel Hill 27599-7025..  
 SO PAIN, (1990 Sep) 42 (3) 307-11.  
 Journal code: OPF. ISSN: 0304-3959.

CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199103

L32 ANSWER 109 OF 146 MEDLINE  
 AN 91007023 MEDLINE  
 DN 91007023  
 TI [Therapeutic perspectives in the irritable bowel syndrome].  
 Perspectives therapeutiques dans le syndrome de l'intestin irritable.  
 AU Chaussade S  
 CS Service d'Hepato-Gastroenterologie, Hopital Cochin, Paris..  
 SO GASTROENTEROLOGIE CLINIQUE ET BIOLOGIQUE, (1990) 14 (5 ( Pt 2)) 81C-84C.  
 Journal code: FGX. ISSN: 0399-8320.

CY France  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA French  
 FS Priority Journals  
 EM 199101

L32 ANSWER 110 OF 146 MEDLINE  
 AN 90320429 MEDLINE  
 DN 90320429  
 TI Treatment of acute or chronic severe, intractable pain and other  
 intractable medical problems associated with unrecognized viral or  
 bacterial infection: Part I.  
 AU Omura Y  
 CS Heart Disease Research Foundation, New York, N.Y..  
 SO ACUPUNCTURE AND ELECTRO-THERAPEUTICS RESEARCH, (1990) 15 (1) 51-69.  
 Journal code: 2GR. ISSN: 0360-1293.

CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199010

L32 ANSWER 111 OF 146 MEDLINE  
 AN 90112315 MEDLINE  
 DN 90112315  
 TI Modulation of pain in fibromyalgia (fibrositis syndrome):  
 cerebrospinal fluid (CSF) investigation of pain related  
 neuropeptides with special reference to calcitonin gene related peptide  
 (CGRP).  
 AU Vaeroy H; Sakurada T; Forre O; Kass E; Terenius L  
 CS Department of Clinical Rheumatology, Oslo Sanitetsforenings Rheumatism  
 Hospital, University of Oslo, Norway..  
 SO JOURNAL OF RHEUMATOLOGY. SUPPLEMENT, (1989 Nov) 19 94-7.  
 Journal code: JWY. ISSN: 0380-0903.

CY Canada  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199004

L32 ANSWER 112 OF 146 MEDLINE  
 AN 89343249 MEDLINE  
 DN 89343249  
 TI Relation between the therapeutic effect of moxibustion in treating  
 arthralgia and SP and enkephalin in nervous tissues.  
 AU Lu Z S; Dong X T; Zhang T J; Cao W H; Deng Y  
 SO JOURNAL OF TRADITIONAL CHINESE MEDICINE, (1989 Mar) 9 (1) 69-74.

Journal code: K9K. ISSN: 0254-6272.  
CY China  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
EM 198911

L32 ANSWER 113 OF 146 MEDLINE  
AN 89024387 MEDLINE  
DN 89024387  
TI Headaches and sinus disease: the endoscopic approach.  
AU Stammberger H; Wolf G  
CS University ENT Clinic, Graz, Austria..  
SO ANNALS OF OTOTOLOGY, RHINOLOGY, AND LARYNGOLOGY. SUPPLEMENT, (1988 Sep-Oct)  
134 3-23. Ref: 44  
Journal code: 5Q3. ISSN: 0096-8056.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 198901

L32 ANSWER 114 OF 146 MEDLINE  
AN 89013640 MEDLINE  
DN 89013640  
TI [New aspects in the pathogenesis and therapy of hyperreflexive  
rhinopathy].  
Neue Aspekte zur Pathogenese und Therapie der hyperreflektorischen  
Rhinopathie.  
AU Wolf G  
CS Univ. -HNO-Klinik Graz..  
SO LARYNGOLOGIE, RHINOLOGIE, OTOTOLOGIE, (1988 Sep) 67 (9) 438-45. Ref: 41  
Journal code: L1R. ISSN: 0340-1588.  
CY GERMANY, WEST: Germany, Federal Republic of  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA German  
FS Priority Journals  
EM 198901

L32 ANSWER 115 OF 146 MEDLINE  
AN 88269756 MEDLINE  
DN 88269756  
TI [Effects of **substance P** and its fragments in  
physiological and pathological **pain**].  
Vliianie substantsii P i ee fragmentov na fiziologicheskuiu i  
patologicheskuiu bol'.  
AU Kryzhanovskii G N; Igon'kina S I; Trubetskaia V V; Oeme P; Binert M  
SO BIULLETEN EKSPERIMENTALNOI BIOLOGII I MEDITSINY, (1988 Jun) 105 (6)  
655-7.  
Journal code: A74. ISSN: 0365-9615.  
CY USSR  
DT Journal; Article; (JOURNAL ARTICLE)  
LA Russian  
FS Priority Journals; Cancer Journals  
EM 198810

L32 ANSWER 116 OF 146 MEDLINE  
AN 88180477 MEDLINE  
DN 88180477  
TI Basic electrical parameters for safe and effective electro-therapeutics

AN 86294414 MEDLINE  
 DN 86294414  
 TI Possible neurohumoral mechanisms in CNS stimulation for pain suppression.  
 AU Meyerson B A; Brodin E; Linderoth B  
 SO APPLIED NEUROPHYSIOLOGY, (1985) 48 (1-6) 175-80.  
 Journal code: 6KK. ISSN: 0302-2773.  
 CY Switzerland  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198611

L32 ANSWER 121 OF 146 MEDLINE  
 AN 86249007 MEDLINE  
 DN 86249007  
 TI Studies of inflammatory pain response: related pain producing substance and endogenous opioid system.  
 AU Shibata M; Ohkubo T; Takahashi H; Kudo T; Inoki R  
 SO NIPPON YAKURIGAKU ZASSHI. FOLIA PHARMACOLOGICA JAPONICA, (1986 Apr) 87 (4)  
 405-15.  
 Journal code: F2X. ISSN: 0015-5691.  
 CY Japan  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA Japanese  
 FS Priority Journals  
 EM 198610

L32 ANSWER 122 OF 146 MEDLINE  
 AN 86134107 MEDLINE  
 DN 86134107  
 TI Substance P displays opposite effects on electroacupuncture analgesia in the periaqueductal gray matter and spinal cord of the rabbit.  
 AU Xie G X; Zhou Z F; Han J S  
 SO CHEN TZU YEN CHIU ACUPUNCTURE RESEARCH, (1985) 10 (2) 125-30.  
 Journal code: DBA. ISSN: 1000-0607.  
 CY China  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA Chinese  
 EM 198606

L32 ANSWER 123 OF 146 MEDLINE  
 AN 86094672 MEDLINE  
 DN 86094672  
 TI Influence of substance P on nociception and stress.  
 AU Oehme P; Hilse H; Gorne R C; Hecht K  
 SO PHARMAZIE, (1985 Aug) 40 (8) 568-70.  
 Journal code: P4D. ISSN: 0031-7144.  
 CY GERMANY, EAST: German Democratic Republic  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198604

L32 ANSWER 124 OF 146 MEDLINE  
 AN 85292763 MEDLINE  
 DN 85292763  
 TI Long-term high frequency transcutaneous electrical nerve stimulation (hi-TNS) in chronic pain. Clinical response and effects on CSF-endorphins, monoamine metabolites, substance P-like immunoreactivity (SPLI) and pain measures.

AU Almay B G; Johansson F; von Knorring L; Sakurada T; Terenius L  
 SO JOURNAL OF PSYCHOSOMATIC RESEARCH, (1985) 29 (3) 247-57.  
 Journal code: JUV. ISSN: 0022-3999.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198512

L32 ANSWER 125 OF 146 MEDLINE  
 AN 85239753 MEDLINE  
 DN 85239753  
 TI The mechanisms of pain and opioid-induced analgesia.  
 AU Smith T W  
 SO MOLECULAR ASPECTS OF MEDICINE, (1984) 7 (6) 509-45.  
 Journal code: MAM. ISSN: 0098-2997.

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CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198510

L32 ANSWER 126 OF 146 MEDLINE  
 AN 85189750 MEDLINE  
 DN 85189750  
 TI [Lars Terenius about neuropeptides and pain: Endorphines  
 alleviate stress--a curative effect? A new spinal-active analgesic  
 insight  
 (interview by Birgit Lindell)].  
 Lars Terenius om neuropeptider och smarta: Endorfinerna dampar  
 stress--kurativ effekt? Nytt analgetikum med spinal verkan hagarar.  
 AU Terenius L  
 SO NORDISK MEDICIN, (1985) 100 (3) 76-80.  
 Journal code: O4K. ISSN: 0029-1420.  
 CY Sweden  
 DT (INTERVIEW)  
 LA Swedish  
 EM 198508

L32 ANSWER 127 OF 146 MEDLINE  
 AN 85168355 MEDLINE  
 DN 85168355  
 TI Physiological and psychological explanations for the mechanism of  
 acupuncture as a treatment for chronic pain.  
 AU Lewith G T; Kenyon J N  
 SO SOCIAL SCIENCE AND MEDICINE, (1984) 19 (12) 1367-78. Ref: 115  
 Journal code: UT9. ISSN: 0277-9536.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 LA English  
 FS Priority Journals  
 EM 198507

L32 ANSWER 128 OF 146 MEDLINE  
 AN 85090330 MEDLINE  
 DN 85090330  
 TI Physiological and pharmacological investigations on pain  
 control.  
 AU Eccles J  
 SO SCHWEIZERISCHE MONATSSCHRIFT FUR ZAHNMEDIZIN, (1984 Oct) 94 Spec No  
 1004-13. Ref: 13  
 Journal code: UEW.

CY Switzerland  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
LA English  
FS Dental Journals  
EM 198504

L32 ANSWER 129 OF 146 MEDLINE

AN 85067738 MEDLINE

DN 85067738

TI Pain--mechanics and management.

AU Fields H L; Levine J D

NC DE 05369 (NIDR)

DA 01949 (NIDA)

AM 32634 (NIADDK)

SO WESTERN JOURNAL OF MEDICINE, (1984 Sep) 141 (3) 347-57. Ref: 61  
~~Journal code: XN5. ISSN: 0093-0415.~~

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LA English

EM 198503

L32 ANSWER 130 OF 146 MEDLINE

AN 85014402 MEDLINE

DN 85014402

TI Implications of neuropeptides in neurological diseases.

AU Sagar S M; Beal M F; Marshall P E; Landis D M; Martin J B

NC NS 16367 (NINDS)

SO PEPTIDES, (1984) 5 Suppl 1 255-62. Ref: 79

Journal code: PA7. ISSN: 0196-9781.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LA English

FS Priority Journals

EM 198501

L32 ANSWER 131 OF 146 MEDLINE

AN 84296829 MEDLINE

DN 84296829

TI [Basic trends in research on substance P (a review)].

Osnovnye napravleniia issledovaniia veshchestva P (obzor).

AU Oehme P

SO PATOLOGICHESKAIA FIZIOLOGIIA I EKSPERIMENTALNAIA TERAPIIA, (1984 May-Jun)  
(3) 57-9. Ref: 24

Journal code: OTF. ISSN: 0031-2991.

CY USSR

DT Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LA Russian

EM 198412

L32 ANSWER 132 OF 146 MEDLINE

AN 84281738 MEDLINE

DN 84281738

TI Action of intrathecal capsaicin and its structural analogues on the  
content and release of spinal substance P: selectivity  
of action and relationship to analgesia.

AU Jhamandas K; Yaksh T L; Harty G; Szolcsanyi J; Go V L

NC NS 14629 (NINDS)

AM07198 (NIADDK)

SO BRAIN RESEARCH, (1984 Jul 23) 306 (1-2) 215-25.

General Review; (REVIEW)  
LA English  
FS Priority Journals  
EM 198404

L32 ANSWER 137 OF 146 MEDLINE

AN 84002209 MEDLINE

DN 84002209

TI **Substance P** and endogenous opioids: how and where they could play a role in cluster headache.

AU Sicuteri F; Rain'o L; Geppetti P

SO CEPHALALGIA, (1983 Aug) 3 Suppl 1 143-5.

Journal code: CQP. ISSN: 0333-1024.

CY Norway

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198401

L32 ANSWER 138 OF 146 MEDLINE

AN 83193056 MEDLINE

DN 83193056

TI [Electroanalgesia by transcutaneous stimulation (TNS). Response to the naloxone test].

Elettroanalgesia da stimolazione transcutanea (TNS). Risposta al test al naloxone.

AU Casale R; Zelaschi F; Guarnaschelli C; Bazzini G

SO MINERVA MEDICA, (1983 Apr 21) 74 (17) 941-6.

Journal code: N6M. ISSN: 0026-4806.

CY Italy

DT Journal; Article; (JOURNAL ARTICLE)

LA Italian

FS Priority Journals; Cancer Journals

EM 198308

L32 ANSWER 139 OF 146 MEDLINE

AN 83052629 MEDLINE

DN 83052629

TI Relation of **substance P** to stress and catecholamine metabolism.

AU Oehme P; Hecht K; Piesche L; Hilse H; Rath sack R

SO CIBA FOUNDATION SYMPOSIUM, (1982) (91) 296-306.

Journal code: D7X. ISSN: 0300-5208.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198303

L32 ANSWER 140 OF 146 MEDLINE

AN 83014024 MEDLINE

DN 83014024

TI Postoperative demand for analgesics in relation to individual levels of endorphins and **substance P** in cerebrospinal fluid.

AU Tamsen A; Sakurada T; Wahlstrom A; Terenius L; Hartvig P

SO PAIN, (1982 Jun) 13 (2) 171-83.

Journal code: OPF. ISSN: 0304-3959.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198301



L32 ANSWER 141 OF 146 MEDLINE  
 AN 82263175 MEDLINE  
 DN 82263175  
 TI [The APUD concept and its clinical significance. 2. Effect of gastrointestinal hormones, polypeptides and neurotransmitters on the physiological course and disease processes of the intestinal tract and the nervous system].  
 Das APUD-Konzept und seine klinische Bedeutung. Teil 2: Der Einfluss von gastrointestinalen Hormonen, Polypeptiden und Neurotransmittern auf physiologische Abläufe und Krankheitsprozesse des Intestinums und des Nervensystems.  
 AU Neumayr A  
 SO FORTSCHRITTE DER MEDIZIN, (1982 Jun 3) 100 (21) 1004-8.  
 Journal code: F62. ISSN: 0015-8178.  
 CY GERMANY, EAST: German Democratic Republic  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA German  
 FS Priority Journals  
 EM 198212

L32 ANSWER 142 OF 146 MEDLINE  
 AN 81037351 MEDLINE  
 DN 81037351  
 TI Pharmacology of pain and analgesia.  
 AU Wilson P R; Yaksh T L  
 SO ANAESTHESIA AND INTENSIVE CARE, (1980 Aug) 8 (3) 248-56. Ref: 92  
 Journal code: 4M5. ISSN: 0310-057X.  
 CY Australia  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 LA English  
 FS Priority Journals  
 EM 198102

L32 ANSWER 143 OF 146 MEDLINE  
 AN 80167262 MEDLINE  
 DN 80167262  
 TI [The fibrositis syndrome (author's transl)].  
 Das Fibrositis-Syndrom.  
 AU Felder M  
 SO SCHWEIZERISCHE RUNDSCHAU FÜR MEDIZIN PRAXIS, (1980 Feb 5) 69 (5) 144-7.  
 Ref: 31  
 Journal code: SRM. ISSN: 0369-8394.  
 CY Switzerland  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 LA German  
 EM 198008

L32 ANSWER 144 OF 146 MEDLINE  
 AN 80034734 MEDLINE  
 DN 80034734  
 TI Central pain mechanisms.  
 AU Duggan A W  
 SO CLINICAL AND EXPERIMENTAL NEUROLOGY, (1978) 15 11-23. Ref: 65  
 Journal code: DDW. ISSN: 0196-6383.  
 CY Australia  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 LA English  
 FS Priority Journals  
 EM 198002

L32 ANSWER 145 OF 146 MEDLINE  
 AN 79137442 MEDLINE  
 DN 79137442  
 TI Endogenous opioid peptides and the control of pain.  
 AU Kosterlitz H W  
 SO PSYCHOLOGICAL MEDICINE, (1979 Feb) 9 (1) 1-4.  
 Journal code: QER. ISSN: 0033-2917.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 197907

L32 ANSWER 146 OF 146 MEDLINE  
 AN 70202648 MEDLINE  
 DN 70202648  
 TI [Antipyretics, analgesics and plasmakinins].  
 Antipiretici-analgesici e plasmachinine.  
 AU Grossi F; Grassi M  
 SO CLINICA TERAPEUTICA, (1970 Feb 15) 52 (3) 281-6.  
 Journal code: DKN. ISSN: 0009-9074.  
 CY Italy  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA Italian  
 EM 197009

=> d 51-100

L32 ANSWER 51 OF 146 MEDLINE  
 AN 97006649 MEDLINE  
 DN 97006649  
 TI Analgesic drugs for neuropathic and sympathetically maintained pain.  
 AU Lipman A G  
 CS Department of Pharmacy Practice, College of Pharmacy and Pain Management Center, University Hospitals and Clinics, University of Utah Health Sciences Center, Salt Lake City, USA.  
 SO CLINICS IN GERIATRIC MEDICINE, (1996 Aug) 12 (3) 501-15. Ref: 30  
 Journal code: CLN. ISSN: 0749-0690.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199703  
 EW 19970301

L32 ANSWER 52 OF 146 MEDLINE  
 AN 96380467 MEDLINE  
 DN 96380467  
 TI Pro- and antinociceptive actions of serotonin (5-HT)1A agonists and antagonists in rodents: relationship to algosimetric paradigm.  
 AU Millan M J; Seguin L; Honore P; Girardon S; Bervoets K  
 CS Department of Psychopharmacology, Centre de Recherches de Croissy, Croissy-sur-Seine, France.  
 SO BEHAVIOURAL BRAIN RESEARCH, (1996) 73 (1-2) 69-77.  
 Journal code: AG3. ISSN: 0166-4328.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English

FS Priority Journals  
EM 199702  
EW 19970204

L32 ANSWER 53 OF 146 MEDLINE  
AN 96380404 MEDLINE  
DN 96380404  
TI Carbamazepine exerts anti-inflammatory effects in the rat.  
AU Bianchi M; Rossoni G; Sacerdote P; Panerai A E; Berti F  
CS Department of Pharmacology, University of Milan, Italy.  
SO EUROPEAN JOURNAL OF PHARMACOLOGY, (1995 Dec 27) 294 (1) 71-4.  
Journal code: EN6. ISSN: 0014-2999.  
CY Netherlands  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199704  
EW 19970403

L32 ANSWER 54 OF 146 MEDLINE  
AN 96350146 MEDLINE  
DN 96350146  
TI Approach to the management of nonmalignant pain.  
AU Katz W A  
CS Department of Medicine, Presbyterian Medical Center of Philadelphia, Pennsylvania 19104, USA.  
SO AMERICAN JOURNAL OF MEDICINE, (1996 Jul 31) 101 (1A) 54S-63S. Ref: 64  
Journal code: 3JU. ISSN: 0002-9343.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
EM 199611

L32 ANSWER 55 OF 146 MEDLINE  
AN 96306333 MEDLINE  
DN 96306333  
TI [Post-traumatic psoriatic arthritis. 2 cases].  
Rhumatisme psoriasique post-traumatique. Deux observations.  
AU Thomachot B; Lafforgue P; Acquaviva P C  
CS Service de Rheumatologie, CHU la Conception, Marseille.  
SO PRESSE MEDICALE, (1996 Jan 6-13) 25 (1) 21-4. Ref: 13  
Journal code: PMT. ISSN: 0755-4982.  
CY France  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW LITERATURE)  
LA French  
FS Priority Journals; Cancer Journals  
EM 199611

L32 ANSWER 56 OF 146 MEDLINE  
AN 96304061 MEDLINE  
DN 96304061  
TI Capsaicin for arthritic pain.  
AU Niv D; Gur Aryeh I  
SO HAREFUAH, (1996 Mar 15) 130 (6) 415-20. Ref: 43  
Journal code: FZF. ISSN: 0017-7768.  
CY Israel  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)

(REVIEW, TUTORIAL)  
 LA Hebrew  
 EM 199611

L32 ANSWER 57 OF 146 MEDLINE  
 AN 96288755 MEDLINE  
 DN 96288755  
 TI Axon and ganglion cell injury in rabbits after percutaneous trigeminal balloon compression.  
 AU Brown J A; Hoeflinger B; Long P B; Gunning W T; Rhoades R; Bennett-Ciarke C A; Chiaia N L; Weaver M T  
 CS Department of Neurological Surgery, Medical College of Ohio, Toledo, USA.  
 SO NEUROSURGERY, (1996 May) 38 (5) 993-1003; discussion 1003-4.  
 Journal code: NZL. ISSN: 0148-396X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199701  
 EW 19970104

L32 ANSWER 58 OF 146 MEDLINE  
 AN 96284168 MEDLINE  
 DN 96284168  
 TI Hemodialysis-related pruritus: a double-blind, placebo-controlled, crossover study of capsaicin 0.025% cream.  
 AU Tarng D C; Cho Y L; Liu H N; Huang T P  
 CS Department of Medicine, Veterans General Hospital-Taipei, Taiwan.  
 SO NEPHRON, (1996) 72 (4) 617-22.  
 Journal code: NW8. ISSN: 0028-2766.  
 CY Switzerland  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA English  
 FS Priority Journals  
 EM 199612

L32 ANSWER 59 OF 146 MEDLINE  
 AN 96106631 MEDLINE  
 DN 96106631  
 TI Topical capsaicin. A review of its pharmacological properties and therapeutic potential in post-herpetic neuralgia, diabetic neuropathy and osteoarthritis.  
 AU Rains C; Bryson H M  
 CS Adis International Ltd. Auckland, New Zealand.  
 SO DRUGS AND AGING, (1995 Oct) 7 (4) 317-28. Ref: 52  
 Journal code: BEK. ISSN: 1170-229X.  
 CY New Zealand  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199604

L32 ANSWER 60 OF 146 MEDLINE  
 AN 96059425 MEDLINE  
 DN 96059425  
 TI Central versus peripheral site of action of the tachykinin NK1-antagonist RP 67580 in inhibiting chemnociception.  
 AU Holzer-Petsche U; Rordorf-Nikolic T

CS Department of Experimental and Clinical Pharmacology, Karl-Franzens-  
University, Graz, Austria.

SO BRITISH JOURNAL OF PHARMACOLOGY, (1995 Jun) 115 (3) 486-90.  
Journal code: B00. ISSN: 0007-1188.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199602

  

L32 ANSWER 61 OF 146 MEDLINE

AN 96017325 MEDLINE

DN 96017325

TI Tiapride attenuates pain transmission through an indirect  
activation of central serotonergic mechanism.

AU Takeshita N; Ohkubo Y; Yamaguchi I

CS Basic Research Group, Tsukuba Research Laboratories, Fujisawa  
Pharmaceutical Co. Ltd., Ibaraki, Japan..

SO JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS, (1995 Oct) 275 (1)  
23-30.  
Journal code: JP3. ISSN: 0022-3565.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199601

  

L32 ANSWER 62 OF 146 MEDLINE

AN 95400256 MEDLINE

DN 95400256

TI Traumatic dysesthesia of the trigeminal nerve.

AU Canavan D; Graff-Radford S B; Gratt B M

CS Department of Orofacial Pain, School of Dentistry, University of  
California, Los Angeles 90024, USA..

SO JOURNAL OF OROFACIAL PAIN, (1994 Fall) 8 (4) 391-6.  
Journal code: B04. ISSN: 1064-6655.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Dental Journals; Dental

EM 199512

  

L32 ANSWER 63 OF 146 MEDLINE

AN 95336506 MEDLINE

DN 95336506

TI Effects of a new foam formulation of ketoprofen lysine salt in  
experimental models of inflammation and hyperalgesia.

AU Daffonchio L; Bestetti A; Clavenna G; Fedele G; Ferrari M P; Omini C

CS Pharmacological Department, Dompe Farmaceutici SpA, Milan, Italy..

SO ARZNEIMITTEL-FORSCHUNG, (1995 May) 45 (5) 590-4.  
Journal code: 91U. ISSN: 0004-4172.

CY GERMANY: Germany, Federal Republic of

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199510

  

L32 ANSWER 64 OF 146 MEDLINE

AN 95336392 MEDLINE

DN 95336392

TI Thalamic ventrobasal stimulation for pain relief. Probable  
mechanisms, pathways and neurotransmitters.

AU Vilela Filho O

CS Department of Psysiology and Pharmacology, Institute of Biological  
Sciences, Universidade Federal de Goias, Brasil..

SO ARQUIVOS DE NEURO-PSIQUIATRIA, (1994 Dec) 52 (4) 578-84. Ref: 30  
Journal code: 8WY. ISSN: 0004-282X.

CY Brazil

DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)

LA English

FS Priority Journals

EM 199510

  

L32 ANSWER 65 OF 146 MEDLINE

AN 95303516 MEDLINE

DN 95303516

TI Increase in plasma calcitonin gene-related peptide from the extracerebral  
circulation during nitroglycerin-induced cluster headache attack.

AU Fanciullacci M; Alessandri M; Figini M; Geppetti P; Michelacci S

CS Institute of Internal Medicine and Therapeutics IV, University of  
Florence, Italy..

SO PAIN, (1995 Feb) 60 (2) 119-23.  
Journal code: OPF. ISSN: 0304-3959.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199509

  

L32 ANSWER 66 OF 146 MEDLINE

AN 95280491 MEDLINE

DN 95280491

TI Immediate relief of spontaneous coronary artery spasm by intracoronary  
infusion of an endothelium-dependent vasodilator, **substance**  
**P**.

AU Numaguchi K; Egashira K; Inou T; Takeshita A

CS Research Institute of Angiocardiology and Cardiovascular Clinic, Kyushu  
University, Faculty of Medicine, Fukuoka, Japan..

SO JAPANESE HEART JOURNAL, (1995 Jan) 36 (1) 111-4.  
Journal code: KH3. ISSN: 0021-4868.

CY Japan

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199509

  

L32 ANSWER 67 OF 146 MEDLINE

AN 95177996 MEDLINE

DN 95177996

TI Topical capsaicin for chronic neck **pain**. A pilot study.

AU Mathias B J; Dillingham T R; Zeigler D N; Chang A S; Belandres P V

CS Physical Medicine and Rehabilitation Service, Brooke Army Medical Center,  
San Antonio, Texas..

SO AMERICAN JOURNAL OF PHYSICAL MEDICINE AND REHABILITATION, (1995 Jan-Feb)  
74 (1) 39-44.  
Journal code: AJO. ISSN: 0894-9115.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Abridged Index Medicus Journals; Priority Journals

EM 199506

  

L32 ANSWER 68 OF 146 MEDLINE

AN 95092229 MEDLINE

DN 95092229  
 TI Topical capsaicin-pharmacology and potential role in the treatment of temporomandibular pain.  
 AU Hersh E V; Pertes R A; Ochs H A  
 CS Department of Oral and Maxillofacial Surgery/Pharmacology, University of Pennsylvania School of Dental Medicine, Philadelphia.  
 SO JOURNAL OF CLINICAL DENTISTRY, (1994) 5 (2) 54-9. Ref: 63  
 Journal code: AGC. ISSN: 0895-8831.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Dental Journals; Dental  
 EM 199503

L32 ANSWER 69 OF 146 MEDLINE  
 AN 95028804 MEDLINE  
 DN 95028804  
 TI Calcitonin and its antinociceptive activity: animal and human investigations 1975-1992.  
 AU Braga P C  
 CS Department of Pharmacology, School of Medicine, University of Milan, Italy..  
 SO AGENTS AND ACTIONS, (1994 May) 41 (3-4) 121-31. Ref: 114  
 Journal code: 2XZ. ISSN: 0065-4299.  
 CY Switzerland  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199501

L32 ANSWER 70 OF 146 MEDLINE  
 AN 94306092 MEDLINE  
 DN 94306092  
 TI Human in vivo evidence for trigeminovascular activation in cluster headache. Neuropeptide changes and effects of acute attacks therapies.  
 AU Goadsby P J; Edvinsson L  
 CS Department of Neurology, Prince Henry Hospital, Sydney, Australia..  
 SO BRAIN, (1994 Jun) 117 ( Pt 3) 427-34.  
 Journal code: B5F. ISSN: 0006-8950.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 199410

L32 ANSWER 71 OF 146 MEDLINE  
 AN 94277603 MEDLINE  
 DN 94277603  
 TI Antinociception following implantation of mouse B16 melanoma cells in mouse and rat spinal cord.  
 AU Wu H H; Lester B R; Sun Z; Wilcox G L  
 CS Department of Pharmacology, University of Minnesota, Minneapolis 55455.  
 NC 1-R01-DA-01933 (NIDA)  
 1-R01-DA-04274 (NIDA)  
 1-K02-DA-00145 (NIDA)  
 SO PAIN, (1994 Feb) 56 (2) 203-10.  
 Journal code: OPF. ISSN: 0304-3959.  
 CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199409

L32 ANSWER 72 OF 146 MEDLINE  
 AN 94277597 MEDLINE  
 DN 94277597  
 TI Low-dose intra-articular morphine analgesia in day case knee arthroscopy:  
 a randomized double-blinded prospective study.  
 AU Dalsgaard J; Felsby S; Juelsgaard P; Froekjaer J  
 CS Department of Anaesthesia, Aarhus Amtssygehus, Aarhus University  
 Hospital,  
 Denmark..  
 SO PAIN, (1994 Feb) 56 (2) 151-4.  
 Journal code: OPF. ISSN: 0304-3959.  
 CY Netherlands  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA English  
 FS Priority Journals  
 EM 199409

L32 ANSWER 73 OF 146 MEDLINE  
 AN 94259583 MEDLINE  
 DN 94259583  
 TI "Capsaicin-sensitive" sensory neurons in cluster headache:  
 pathophysiological aspects and therapeutic indication.  
 AU Fusco B M; Fiore G; Gallo F; Martelletti P; Giacobazzo M  
 CS Institute of Internal Medicine VI, University La Sapienza, Rome, Italy..  
 SO HEADACHE, (1994 Mar) 34 (3) 132-7.  
 Journal code: GLN. ISSN: 0017-8748.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 EM 199409

L32 ANSWER 74 OF 146 MEDLINE  
 AN 94207798 MEDLINE  
 DN 94207798  
 TI Nerve growth factor administration protects against experimental diabetic  
 sensory neuropathy.  
 AU Apfel S C; Arezzo J C; Brownlee M; Federoff H; Kessler J A  
 CS Department of Neurology, Albert Einstein College of Medicine, Bronx, NY  
 10461..  
 NC ES05752 (NIEHS)  
 NS20013 (NINDS)  
 NS20078 (NINDS)  
 +  
 SO BRAIN RESEARCH, (1994 Jan 14) 634 (1) 7-12.  
 Journal code: B5L. ISSN: 0006-8993.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199407

L32 ANSWER 75 OF 146 MEDLINE  
 AN 94191950 MEDLINE  
 DN 94191950  
 TI Pain management: physiopathology, future research and endpoints.  
 AU Sosnowski M



CS Service d'Anesthesiologie, Institut Jules Bordet, Bruxelles, Belgium..  
 SO SUPPORTIVE CARE IN CANCER, (1993 Mar) 1 (2) 79-88. Ref: 122  
 Journal code: B11. ISSN: 0941-4355.  
 CY GERMANY: Germany, Federal Republic of  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199407

L32 ANSWER 76 OF 146 MEDLINE  
 AN 94187531 MEDLINE  
 DN 94187531  
 TI Spinal co-administration of peptide substance P  
 antagonist increases antinociceptive effect of the opioid peptide  
 biphalin.  
 AU Misterek K; Maszczynska I; Dorociak A; Gumulka S W; Carr D B; Szyfelbein  
 S  
 K; Lipkowski A W  
 CS Department of Pharmacodynamics, Medical Academy, Warsaw, Poland..  
 SO LIFE SCIENCES, (1994) 54 (14) 939-44.  
 Journal code: L62. ISSN: 0024-3205.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199406

L32 ANSWER 77 OF 146 MEDLINE  
 AN 94098725 MEDLINE  
 DN 94098725  
 TI [Analgesic effect of low-dose intra-articular morphine after ambulatory  
 knee arthroscopy].  
 Analgesi af lavdosis intraartikulaer morfin efter ambulant  
 knaeartroskopi.  
 AU Dalsgaard J; Felsby S; Juelsgaard P; Frokjaer J  
 CS Anaesthesiologisk og ortopaedkirurgisk afdeling, Arhus Amtssygehus.  
 SO UGESKRIFT FOR LAEGER, (1993 Dec 20) 155 (51) 4166-9.  
 Journal code: WM8. ISSN: 0041-5782.  
 CY Denmark  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA Danish  
 EM 199404

L32 ANSWER 78 OF 146 MEDLINE  
 AN 94051280 MEDLINE  
 DN 94051280  
 TI The analgesia induced by intrathecal injection of ruthenium red.  
 AU Ohkubo T; Shibata M; Takahashi H  
 CS Department of Pharmacology, Fukuoka Dental College, Japan..  
 SO PAIN, (1993 Aug) 54 (2) 219-21.  
 Journal code: OPF. ISSN: 0304-3959.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199402

L32 ANSWER 79 OF 146 MEDLINE  
 AN 94039488 MEDLINE

DN 93378093  
 TI The ganglioside GM1 decreases autotomy but not **substance**  
 P depletion in a peripheral mononeuropathy rat model.  
 AU Fromm C; DeLeo J A; Coombs D W; Colburn R W; Twitchell B B  
 CS Department of Anesthesiology, Dartmouth-Hitchcock Medical Center,  
 Lebanon,  
 NH 03756..  
 SO ANESTHESIA AND ANALGESIA, (1993 Sep) 77 (3) 501-6.  
 Journal code: 4R8. ISSN: 0003-2999.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 199312

L32 ANSWER 84 OF 146 MEDLINE  
 AN 93362502 MEDLINE  
 DN 93362502  
 TI CSF neuropeptides in cancer **pain**: effects of spinal opioid  
 therapy.  
 AU Samuelsson H; Ekman R; Hedner T  
 CS Department of Anaesthesia and Intensive Care, Central Hospital, Boras,  
 Sweden..  
 SO ACTA ANAESTHESIOLOGICA SCANDINAVICA, (1993 Jul) 37 (5) 502-8.  
 Journal code: 080. ISSN: 0001-5172.  
 CY Denmark  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199311

L32 ANSWER 85 OF 146 MEDLINE  
 AN 93339007 MEDLINE  
 DN 93339007  
 TI [Evaluation of the efficacy of intra-articular administration of  
 somatostatin in rheumatoid arthritis].  
 Valutazione dell'efficacia della somatostatina per via intrarticolare in  
 pazienti con artrite reumatoide.  
 AU Fioravanti A; Franci A; Gelli R; Minari C; Montemerani M; Moscato P;  
 Marcolongo R  
 CS Istituto di Reumatologia, Universit'a degli Studi di Siena..  
 SO CLINICA TERAPEUTICA, (1993 May) 142 (5) 453-7.  
 Journal code: DKN. ISSN: 0009-9074.  
 CY Italy  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 LA Italian  
 EM 199311

L32 ANSWER 86 OF 146 MEDLINE  
 AN 93327254 MEDLINE  
 DN 93327254  
 TI **Substance P**-like immunoreactivity and analgesic  
 effects of vibratory stimulation on patients suffering from chronic  
**pain**.  
 AU Guieu R; Tardy-Gervet M F; Giraud P  
 CS Laboratoire de Biochimie, UER de Medecine, secteur Nord, URA CNRS 1455,  
 Marseilles, France.  
 SO CANADIAN JOURNAL OF NEUROLOGICAL SCIENCES, (1993 May) 20 (2) 138-41.  
 Journal code: CJ9. ISSN: 0317-1671.  
 CY Canada  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English

FS Priority Journals  
EM 199310

L32 ANSWER 87 OF 146 MEDLINE  
AN 93304251 MEDLINE  
DN 93304251  
TI Spinal actions of NSAIDS in blocking spinally mediated hyperalgesia: the role of cyclooxygenase products.  
AU Yaksh T L; Malmberg A B  
CS Department of Anesthesiology, University of California, San Diego, La Jolla..  
NC NIDA 02110  
SO AGENTS AND ACTIONS. SUPPLEMENTS, (1993) 41 89-100. Ref: 21  
Journal code: 2YH. ISSN: 0379-0363.  
CY Switzerland  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 199309

L32 ANSWER 88 OF 146 MEDLINE  
AN 93304250 MEDLINE  
DN 93304250  
TI **Substance P** and inflammatory pain: potential of **substance P** antagonists as analgesics.  
AU Henry J L  
CS Department of Physiology, McGill University, Montreal, Quebec, Canada..  
SO AGENTS AND ACTIONS. SUPPLEMENTS, (1993) 41 75-87. Ref: 66  
~~Journal code: 2YH. ISSN: 0379-0363.~~  
CY Switzerland  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 199309

L32 ANSWER 89 OF 146 MEDLINE  
AN 93265534 MEDLINE  
DN 93265534  
TI The role of 5-hydroxytryptamine (5-HT) receptor subtypes and plasticity in the 5-HT systems in the regulation of nociceptive sensitivity.  
AU Eide P K; Hole K  
CS Department of Physiology, University of Bergen, Norway..  
SO CEPHALALGIA, (1993 Apr) 13 (2) 75-85. Ref: 100  
Journal code: CQP. ISSN: 0333-1024.  
CY Norway  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 199308

L32 ANSWER 90 OF 146 MEDLINE  
AN 93265525 MEDLINE  
DN 93265525  
TI A double-blind placebo-controlled trial of intranasal capsaicin for cluster headache [see comments].  
CM Comment in: Cephalalgia 1993 Apr;13(2):73-4

AU Marks D R; Rapoport A; Padla D; Weeks R; Rosum R; Sheftell F; Arrowsmith  
 F  
 CS Clinical Immunology Unit, Massachusetts General Hospital, Boston 92114..  
 SO CEPHALALGIA, (1993 Apr) 13 (2) 114-6.  
 Journal code: CQP. ISSN: 0333-1024.  
 CY Norway  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA English  
 FS Priority Journals  
 EM 199308

L32 ANSWER 91 OF 146 MEDLINE  
 AN 93260364 MEDLINE  
 DN 93260364  
 TI Enhanced phagocytic cell respiratory burst induced by spinal manipulation  
 potential role of **substance P** [letter].  
 AU Polkinghorn B S  
 SO JOURNAL OF MANIPULATIVE AND PHYSIOLOGICAL THERAPEUTICS, (1993 Mar-Apr) 16  
 (3) 195-7.  
 Journal code: IY5. ISSN: 0161-4754.  
 CY United States  
 DT Letter  
 LA English  
 FS Priority Journals  
 EM 199308

L32 ANSWER 92 OF 146 MEDLINE  
 AN 93246323 MEDLINE  
 DN 93246323  
 TI Acetyl-L-carnitine prevents **substance P** loss in the  
 sciatic nerve and lumbar spinal cord of diabetic animals.  
 AU Di Giulio A M; Gorio A; Bertelli A; Mantegazza P; Ferraris L; Ramacci M T  
 CS Department of Medical Pharmacology, University of Milan, Italy..  
 SO INTERNATIONAL JOURNAL OF CLINICAL PHARMACOLOGY RESEARCH, (1992) 12 (5-6)  
 243-6.  
 Journal code: GRA. ISSN: 0251-1649.  
 CY Switzerland  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199308

L32 ANSWER 93 OF 146 MEDLINE  
 AN 93067512 MEDLINE  
 DN 93067512  
 TI Antinociceptive effect of mexiletine in diabetic mice.  
 AU Kamei J; Hitosugi H; Kawashima N; Aoki T; Ohhashi Y; Kasuya Y  
 CS Department of Pharmacology, Faculty of Pharmaceutical Sciences, Hoshi  
 University, Tokyo, Japan..  
 SO RESEARCH COMMUNICATIONS IN CHEMICAL PATHOLOGY AND PHARMACOLOGY, (1992  
 Aug) 77 (2) 245-8.  
 Journal code: R62. ISSN: 0034-5164.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199302

L32 ANSWER 94 OF 146 MEDLINE  
 AN 92390724 MEDLINE

DN 92390724  
 TI Hyperalgesia mediated by spinal glutamate or **substance P**  
 receptor blocked by spinal cyclooxygenase inhibition.  
 AU Malmberg A B; Yaksh T L  
 CS Department of Anesthesiology, University of California-San Diego, La  
 Jolla  
 92093-0818.  
 NC DA02110 (NIDA)  
 SO SCIENCE, (1992 Aug 28) 257 (5074) 1276-9.  
 Journal code: UJ7. ISSN: 0036-8075.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199212

L32 ANSWER 95 OF 146 MEDLINE  
 AN 92346473 MEDLINE  
 DN 92346473  
 TI Capsaicin and **substance P**.  
 AU Bernstein J E  
 CS GenDerm Corporation, Lincolnshire, IL 60069..  
 SO CLINICS IN DERMATOLOGY, (1991 Oct-Dec) 9 (4) 497-503. Ref: 66  
 Journal code: CLD. ISSN: 0738-081X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199211

L32 ANSWER 96 OF 146 MEDLINE  
 AN 92336614 MEDLINE  
 DN 92336614  
 TI **Substance P** in chronic pain.  
 AU Molina E  
 CS Institute of Pharmacology and Pharmacognosy, University of Parma..  
 SO ACTA BIO-MEDICA DE L ATENEO PARMENSE, (1991) 62 (3-4) 111-6.  
 Journal code: OE7. ISSN: 0004-6351.  
 CY Italy  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199210

L32 ANSWER 97 OF 146 MEDLINE  
 AN 92295952 MEDLINE  
 DN 92295952  
 TI Alterations of spinal dorsal horn **substance P**  
 following electroacupuncture analgesia--a study of the formalin test with  
 immunohistochemistry and densitometry.  
 AU Du J; He L  
 CS Dept. of Neurobiology, Institute of Acupuncture Research, Shanghai  
 Medical  
 University, People's Republic of China..  
 SO ACUPUNCTURE AND ELECTRO-THERAPEUTICS RESEARCH, (1992) 17 (1) 1-6.  
 Journal code: 2GR. ISSN: 0360-1293.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199209

L32 ANSWER 98 OF 146 MEDLINE  
 AN 92239989 MEDLINE  
 DN 92239989  
 TI Links between headache mechanisms and new medications.  
 AU Nicolodi M; Sicuteri F  
 CS Interuniversity Centre, Florence University, Italy..  
 SO CLINICAL JOURNAL OF PAIN, (1991) 7 Suppl 1 S64-71. Ref: 62  
 Journal code: BEG. ISSN: 0749-8047.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199208

L32 ANSWER 99 OF 146 MEDLINE  
 AN 92239986 MEDLINE  
 DN 92239986  
 TI Recent acquisitions in pain therapy: meclofenamic acid.  
 AU Izzo V; Pagnoni B; Rigoli M  
 CS Department of Physiopathology and Pain Therapy, University of Milan, Italy..  
 SO CLINICAL JOURNAL OF PAIN, (1991) 7 Suppl 1 S49-53. Ref: 13  
 Journal code: BEG. ISSN: 0749-8047.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199208

L32 ANSWER 100 OF 146 MEDLINE  
 AN 92226660 MEDLINE  
 DN 92226660  
 TI Enhanced neutrophil respiratory burst as a biological marker for manipulation forces: duration of the effect and association with substance P and tumor necrosis factor [see comments].  
 CM Comment in: J Manipulative Physiol Ther 1992 Jun;15(5):334-5  
 Comment in: J Manipulative Physiol Ther 1993 Sep;16(7):505-7  
 AU Brennan P C; Triano J J; McGregor M; Kokjohn K; Hondras M A; Brennan D C  
 CS Research Department, National College of Chiropractic, Lombard, IL 60148-4583..  
 SO JOURNAL OF MANIPULATIVE AND PHYSIOLOGICAL THERAPEUTICS, (1992 Feb) 15 (2) 83-9.  
 Journal code: IY5. ISSN: 0161-4754.  
 CY United States  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199207

=> d 54, 70,75,76,84,88 bib ab

L32 ANSWER 54 OF 146 MEDLINE  
 AN 96350146 MEDLINE  
 DN 96350146  
 TI Approach to the management of nonmalignant pain.

AU Katz W A  
 CS Department of Medicine, Presbyterian Medical Center of Philadelphia,  
 Pennsylvania 19104, USA.  
 SO AMERICAN JOURNAL OF MEDICINE, (1996 Jul 31) 101 (1A) 54S-63S. Ref: 64  
 Journal code: 3JU. ISSN: 0002-9343.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
 EM 199611  
 AB **Pain** is a universal, subjective, unpleasant sensation. It results from a noxious stimulus that causes the body to perceive existing or potential damage to its organs. The biochemical mechanism of **pain** is based on peripheral nociceptors that preferentially receive noxious stimuli and thereafter cause the primary afferent nociceptor fibers to release endogenous chemicals such as bradykinin, histamine, prostaglandins, serotonin, norepinephrine, and **substance P**. Additionally, **substance P** may stimulate prostaglandin and collagenase production, thus providing an explanation for the effectiveness of anti-inflammatory drugs in relieving **pain**. The interpretation of **pain** is highly individualized and embodies the entire personality. Thus, no two patients with **pain** can be treated in the same way. **Pain** is assessed through medical history, physical examination, and a variety of **pain** scales. General principles in managing **pain** call for the physician to (1) respect **pain**; (2) recognize the psychologic components of **pain**; and (3) treat the underlying disorder in a timely fashion. Modern management of **pain** evokes a multidisciplinary approach that includes patient education, pharmacologic intervention, physical medicine, minimally invasive procedures, psychologic counseling, behavioral modification and, in some instances, surgery or a variety of other nonpharmacologic modalities.

L32 ANSWER 70 OF 146 MEDLINE

AN 94306092 MEDLINE

DN 94306092

TI Human in vivo evidence for trigeminovascular activation in cluster headache. Neuropeptide changes and effects of acute attacks **therapies**.

AU Goadsby P J; Edvinsson L

CS Department of Neurology, Prince Henry Hospital, Sydney, Australia..

SO BRAIN, (1994 Jun) 117 ( Pt 3) 427-34.

Journal code: B5F. ISSN: 0006-8950.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Abridged Index Medicus Journals; Priority Journals

EM 199410

AB Cluster headache is a rare very severe disorder that is clinically well characterized with a relatively poorly understood pathophysiology. In this

study patients with episodic cluster headache fulfilling the criteria of the International Headache Society were examined during an acute spontaneous attack of headache to determine the local cranial release of neuropeptides. Blood was sampled from the external jugular vein ipsilateral to the **pain** before and after treatment of the attack. Samples were assayed for calcitonin gene-related peptide (CGRP), vasoactive intestinal polypeptide (VIP), **substance P** and neuropeptide Y. Attacks were treated with either oxygen inhalation, sumatriptan or an opiate. Thirteen patients were studied of whom 10 were male and three female. All had well-established typical attacks of cluster

headache when blood was sampled. During the attacks external jugular vein blood levels of CGRP and VIP were raised while there was no change in neuropeptide Y or **substance P**. Calcitonin gene-related peptide levels rose to 110 +/- 7 pmol/l (normal: < 40) while VIP levels rose to 20 +/- 3 pmol/l (normal: < 7). Treatment with both oxygen and subcutaneous sumatriptan reduced the CGRP level to normal, while opiate administration did not alter the peptide levels. These data demonstrate for the first time in vivo human evidence for activation of the trigeminovascular system and the cranial parasympathetic nervous system in an acute attack of cluster headache. Furthermore, it is shown that both oxygen and sumatriptan abort the attacks and terminate activity in the trigeminovascular system.

L32 ANSWER 75 OF 146 MEDLINE  
 AN 94191950 MEDLINE  
 DN 94191950  
 TI Pain management: physiopathology, future research and endpoints.  
 AU Sosnowski M  
 CS Service d'Anesthesiologie, Institut Jules Bordet, Bruxelles, Belgium..  
 SO SUPPORTIVE CARE IN CANCER, (1993 Mar) 1 (2) 79-88. Ref: 122  
 Journal code: B1L. ISSN: 0941-4355.  
 CY GERMANY: Germany, Federal Republic of  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199407  
 AB In this article, first, the different stages of acquisition and processing of nociceptive information from peripheral receptor to brain are reviewed and the plastic changes that accompany tissue injury are underlined. For instance, the subclassification of peripheral receptors in nociceptors and non-nociceptors (e.g., mechanoreceptors, thermoreceptors) must be understood in the light of peripheral sensitization. This phenomenon is the probable explanation for primary hyperalgesia, the decrease in pain threshold at the site of injury. The observation that **substance P** enhances N-methyl-D-aspartate (NMDA)-elicited responses suggests that these two receptors may operate in concert to prolong and amplify the afferent input generated by peripheral tissue injury. Such afferent barrage induces a state of central sensitization. Second, the major problems in the management of cancer pain, i.e. the development of tolerance to opioids and opioid-insensitive pain, are discussed. The loss of drug effect observed after chronic exposure of the opioid receptor (tolerance) may be the consequence of the down-regulation or desensitization phenomenon (where the total number of receptors coupled to the second messenger is reduced). The agonist dose-response begins to shift to the right. The dramatic analgesic improvement obtained with subanaesthetic doses of ketamine, an NMDA receptor antagonist, in those of our cancer patients who have become resistant to morphine is intriguing. As shown for tolerance, insensitivity to opioids may represent a rightward shift in the opioid dose-response curve and the analgesic effect of ketamine the reversal of that shift.

L32 ANSWER 76 OF 146 MEDLINE  
 AN 94187531 MEDLINE  
 DN 94187531  
 TI Spinal co-administration of peptide **substance P**



antagonist increases antinociceptive effect of the opioid peptide biphalin.

AU Misterek K; Maszczynska I; Dorociak A; Gumulka S W; Carr D B; Szyfelbein S

CS K; Lipkowski A W

SO Department of Pharmacodynamics, Medical Academy, Warsaw, Poland..

SO LIFE SCIENCES, (1994) 54 (14) 939-44.

Journal code: L62. ISSN: 0024-3205.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 199406

AB Intrathecal injection of 0.25 micrograms of undecapeptide **substance P** antagonist (SPA) produced transient antinociception with a peak effect at 5 min. Increasing the SPA dose resulted in neurotoxicity. Intrathecal injection of the opioid peptide biphalin (BIP) produced antinociception for over 3 hrs without neurotoxicity. Co-administration of SPA (at subtoxic doses) increased BIP's antinociceptive effect. Naltrexone reversed analgesia due to BIP alone as well as after BIP+SPA.

L32 ANSWER 84 OF 146 MEDLINE

AN 93362502 MEDLINE

DN 93362502

TI CSF neuropeptides in cancer pain: effects of spinal opioid therapy.

AU Samuelsson H; Ekman R; Hedner T

CS Department of Anaesthesia and Intensive Care, Central Hospital, Boras, Sweden..

SO ACTA ANAESTHESIOLOGICA SCANDINAVICA, (1993 Jul) 37 (5) 502-8.

Journal code: 080. ISSN: 0001-5172.

CY Denmark

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199311

AB The cerebrospinal fluid (CSF) levels of the opioid peptides met-enkephalin (ME), beta-endorphin (BE) and dynorphin (DYN) as well as the putative sensory neuropeptides **substance P** (SP), somatostatin (SOM), calcitonin gene related peptide (CGRP) and vasoactive intestinal polypeptide (VIP) were determined in 10 patients with severe nociceptive pain due to malignancy, before and after initiation of spinal opioid therapy, and in 10 control patients. Pain intensity, evaluated by means of a 100-mm visual analog scale (VAS), was reduced from 39 +/- 9 to 18 +/- 10 for continuous pain and from 70 +/- 10 to 10 +/- 8 for intermittent pain (means +/- s.e.mean). Lumbar CSF immunoreactive ME and DYN concentrations were significantly increased ( $P = 0.05$ ) and BE and VIP were significantly decreased ( $P < \text{or} = 0.05$ ) in the pain patients. A slight, but non-significant ( $P = 0.06$ ) decrease in SP-like immunoreactivity was found after initiation of spinal opioid therapy. Visceral pain seemed to be associated with low immunoreactive SP and ME concentrations compared to somatic pain. A highly significant correlation was found between SP and ME ( $P < 0.001$ ) and to a lesser extent also between other peptides. We conclude that the concentrations of the endogenous opioids were more affected by nociceptive pain states than the non-opioid peptides. The origin of pain may also influence the results. The postulated inhibition of peptide release by spinal opioid application seemed to be present for SP, but could otherwise not be confirmed.

L31 57789 S L8 AND L30  
L32 146 S L29 AND L31

=> d 116 81, 109,128,142,145,147,159,169,161,170,176 bib ab

L16 ANSWER 81 OF 182 MEDLINE  
AN 95163770 MEDLINE  
DN 95163770  
TI Probing the brain and spinal cord with neuropeptides in pathways related to **pain** and other functions.  
AU Duggan A W; Furmidge L J  
CS Department of Preclinical Veterinary Sciences, Royal (Dick) School of Veterinary Studies, University of Edinburgh, Summerhall, United Kingdom..  
SO FRONTIERS IN NEUROENDOCRINOLOGY, (1994 Sep) 15 (3) 275-300. Ref: 116  
Journal code: E4M. ISSN: 0091-3022.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, ACADEMIC)  
LA English  
FS Priority Journals  
EM 199505  
AB The principles involved in the fabrication and use in vivo of antibody microprobes are described. These devices have shown that immunoreactive (ir)-**substance P** and ir-neurokinin A are released in the region of the substantia gelatinosa of the spinal cord when impulses arrive in nociceptors. Particularly with ir-neurokinin A, rapid inactivation does not appear to occur, resulting in the released neuropeptides accessing sites relatively remote from sites of release. Microprobes have also provided evidence that the sites accessed by ir-**substance P** are controlled by spinal cord peptidases and that peptidase **inhibition** by the endogenous neuropeptide calcitonin gene-related peptide expands the distribution of sites reached.  
Inflammatory joint disease results in a relatively massive central release of ir-**substance P** when the damaged joints are flexed or compressed. Antibody microprobe studies of the spinal release of ir-galanin have favored release from intrinsic spinal neurons rather than from primary afferent terminals following peripheral noxious stimuli. Immunoreactive-somatostatin was found to be released following noxious thermal but not noxious mechanical peripheral stimuli but it is uncertain whether this results from release predominantly from primary afferents or intrinsic spinal neurons. Studies using antibody microprobes inserted into the brain have detected the release of ir-**substance P** in the ventral region of the striatum following administration of amphetamine. Microprobes have also followed peptide release from striatal terminals in substantia nigra and have provided evidence of a basal presence of ir-neurokinin A but not of **substance P**. Depletion of the dopamine input to the striatum, or **blockade** of dopamine **receptors**, caused considerable reduction of ir-neurokinin A released within the substantia nigra.

L16 ANSWER 109 OF 182 MEDLINE  
AN 93304250 MEDLINE  
DN 93304250  
TI **Substance P** and inflammatory **pain**: potential of **substance P** antagonists as analgesics.  
AU Henry J L  
CS Department of Physiology, McGill University, Montreal, Quebec, Canada..

LA English  
 AB Peptides are of potential interest in the field of **gene therapy** but require modification by genetic engineering to facilitate their secretion. N-terminal addn. of a signal peptide is not always sufficient to achieve this goal, as found in this study for .beta.-endorphin. To overcome this problem, addn. of the pre-pro-sequence of mouse NGF to .beta.-endorphin was tested. Retrovirus-mediated expression of a hybrid construct of the pre-pro-sequence of NGF and human .beta.-endorphin in primary fibroblasts resulted in the secretion of .beta.-endorphin immunoreactivity at a rate of 620 pg/h/106 cells. Anal. of the secreted .beta.-endorphin immunoreactivity with reverse-phase

HPLC, immunoassays using 3 different antibodies, and an assay for the specific displacement of [3H][D-Ala2,N-MePhe4,Gly-ol5]**enkephalin** from .mu.-opioid receptors suggests that the pre-pro-sequence is cleaved off from the pre-pro-sequence/.beta.-endorphin construct prior to secretion, resulting in bona fide .beta.-endorphin. Transplantation of .beta.-endorphin-secreting cells into brain or spinal cord may provide a **gene therapy** approach for the treatment of chronic, opioid-sensitive pain states.

L58 ANSWER 3 OF 4 CAPLUS COPYRIGHT 1999 ACS

AN 1994:290836 CAPLUS

DN 120:290836

TI **Gene therapy** using herpes simplex virus-based vector containing rat preproenkephalin gene promoter

IN Kaplitt, Michael G.

PA Rockefeller University, USA

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9404695	A1	19940303	WO 93-US7685	19930816
	W: AU, CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRAI	US 92-930875		19920814		

AB A brain or endocrine cells-directive expression vector based on defective virus such as herpes simplex virus 1 (HSV 1) and an inserted promoter of the preproenkephalin gene is provided for **gene therapy**

. It can be used for the expression of the gene for amyloid precursor protein, .beta.-amyloid peptide, tyrosine hydroxylase, a clotting factor, or a hormone. Expression of the bacteria lacZ gene in rat brain and adrenal cells using the promoter of rat preproenkephalin gene was demonstrated. The illustrated vector is particularly useful with adult mammalian brain, and offers the promise of a strategy for the treatment

of such neural disorders as Parkinson's disease and Alzheimer's disease.

L58 ANSWER 4 OF 4 CAPLUS COPYRIGHT 1999 ACS

AN 1993:463058 CAPLUS

DN 119:63058

TI Therapy of central nervous system by genetically modified cells

IN Gage, Fred; Friedmann, Theodore; Rosenberg, Michael B.; Wolff, Jon A.;

Schinstine, Malcolm; Kawaja, Michael D.; Ray, Jasodhara

PA University of California, Oakland, USA

SO PCT Int. Appl., 225 pp.

CODEN: PIXXD2

DT Patent

LA English

## FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9310234	A1	19930527	WO 92-US9896	19921113
	W: BG, CS, FI, HU, NO, PL, RO, RU				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
	EP 625195	A1	19941123	EP 92-925278	19921113
	EP 625195	B1	19990107		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, SE				
	AT 175442	E	19990115	AT 92-925278	19921113
	CA 2095300	AA	19941031	CA 93-2095300	19930430
	JP 06329559	A2	19941129	JP 93-136554	19930514
	US 5650148	A	19970722	US 94-209609	19940310
	US 5762926	A	19980609	US 95-464397	19950605
PRAI	US 91-792894		19911115		
	US 88-285196		19881215		
	WO 92-US9896		19921113		
	US 94-209609		19940310		

AB A method for treating defective, diseased, or damaged cells in the mammalian central nervous system (CNS) comprises grafting donor cells

into

the CNS. The donor cells are genetically modified (e.g. by insertion of .gtoreq.1 therapeutic gene) to produce functional mols. in a sufficient amt. to ameliorate the defective, diseased, or damaged cells in the CNS. Methods and vectors for carrying out gene transfer and grafting are described. The retroviral vector pLThRNL, a Moloney leukemia virus-derived retroviral vector, was constructed expressing the rat cDNA for tyrosine hydroxylase (TH) from the 5' LTR sequence and contg. a neomycin-resistance gene transcribed from an internal RSV promoter. The retroviral vector was transfected into producer cells to produce virus LThRNL carrying the gene encoding TH. Immortalized rat fibroblasts were infected with LThRNL and cells were selected for expression of the neomycin-resistance gene by growth in 400 .mu.g/mL of G-418. Fibroblasts expressing TH produced L-DOPA when cultured in media supplemented with 6-methyl-5,6,7,8-tetrahydropterin. When the DOPA-producing fibroblasts were implanted into the rostral caudate region, they reduced the rotational asymmetry in the rat model of Parkinson's disease.

=> d 160 1-4 bib ab

L60 ANSWER 1 OF 4 CAPLUS COPYRIGHT 1999 ACS

AN 1995:913284 CAPLUS

DN 123:340754

TI Non-peptide peptidomimetics with affinity for G-protein-linked receptors

IN Hirschmann, Ralph F.; Nicolaou, Kyriacos C.; Pietranico, Sherrie; Reisine,

Terry D.; Salvino, Joseph M.; Sprengeler, Paul; Strader, Catherine D.

PA Trustees of the University of Pennsylvania, USA

SO PCT Int. Appl., 200 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9511686	A1	19950504	WO 94-US12233	19941026
	W: CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5552534	A	19960903	US 93-144660	19931028
	EP 728007	A1	19960828	EP 94-932029	19941026
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT,				

SE

PRAI US 93-144660 19931028  
US 91-748826 19910822  
WO 94-US12233 19941026

OS MARPAT 123:340754

AB Compds. I [gtoreq.1 of R1, R2, R3, R4 or R5 comprises a functional group chem. similar to that found in a **peptide** of interest] are provided. I are cross-reactive with **peptides** such as those which bind G-protein-linked receptors. For example, reaction of N-(phenylsulfonyl)tryptophol with 1-bromo-.alpha.-D-glucose tetraacetate [prepns. given] in the presence of Ag2O gave 64%

2-(1-phenylsulfonylindol-3-yl)ethyl 2,3,4,6-tetra-O-acetyl-.beta.-D-glucopyranoside, which underwent deacetylation (88%), 6-O-silylation (85%), 2,3,4-tri-O-benzoylation (74%), desilylation (94%), conversion to the 6-O-triflate, etherification with AcNH(CH2)5OH using 2.2 mol equiv NaH, and

deprotection

of the indole N with NaOH in aq. EtOH, to give title compd. II. The IC50 of II for inhibition of **substance P** binding to cloned human neurokinin-1 receptor was 56 nM. Prepns. of approx. 40 compds. I and their intermediates, and binding data for selected compds. to several receptor types, are described.

L60 ANSWER 2 OF 4 CAPLUS COPYRIGHT 1999 ACS

AN 1993:420137 CAPLUS

DN 119:20137

TI A non-**peptide** NK1-receptor antagonist, RP 67580, inhibits neurogenic inflammation postsynaptically

AU Moussaoui, S. M.; Montier, F.; Carruette, A.; Blanchard, J. C.; Laduron, P. M.; Garret, C.

CS Cent. Rech. Vitry-Alfortville, Rhone-Poulenc Rorer, Vitry-sur-Seine, 94403, Fr.

SO Br. J. Pharmacol. (1993), 109(1), 259-64

CODEN: BJPCBM; ISSN: 0007-1188

DT Journal

LA English

AB The non-**peptide** neurokinin NK1-receptor antagonist, RP 67580 (3aR, 7aR), a perhydroisoindolone deriv., powerfully reduced plasma extravasation in rat hind paw skin induced by local application of xylene (ID50 = 0.03 mg kg-1, i.v.) or capsaicin (ID50 = 0.06 mg kg-1, i.v.), or by i.v. injection of exogenous **substance P** (SP) or septide ([pGlu6,Pro9]SP(6-11)) (ID50 = 0.04-0.05 mg kg-1, i.v.). RP

67580 (1 mg kg-1, i.v.) also abolished capsaicin-induced nasal fluid hypersecretion (by 82 +/- 5%). These effects were found to be stereospecific, the enantiomer, RP 68661 (3aS, 7aS), being inactive at 1 mg kg-1, i.v. In rats neonatally treated with capsaicin (50 mg kg-1, s.c.), plasma extravasation induced by SP was significantly increased (by 45 +/- 7%). RP 67580 (1 mg kg-1, i.v.) completely inhibited the SP-induced plasma extravasation in capsaicin neonatally treated-animals, as it did in control animals. This result suggests that RP 67580 acts at the postsynaptic level for the inhibition of plasma extravasation.

Opioid receptor agonists, .mu.-(morphine) and .kappa.-(PD-11302) at 10 mg kg-1, s.c., in contrast to NK1-receptor antagonists, did not inhibit plasma extravasation induced by exogenous

SP.

They were, however, partially effective against plasma extravasation induced by elec. nerve stimulation (74 +/- 4% and 48 +/- 9% inhibition at 10 mg kg-1, s.c. of morphine and PD-117302, resp., compared to 90 +/- 3% inhibition obtained with RP 67580, 3 mg kg-1, s.c.). These results indicate the presynaptic action of opioid receptor agonists, in contrast to the postsynaptic action of NK1-receptor antagonists for the inhibition of plasma extravasation. Ligature of the saphenous nerve distal to the point of elec. stimulation, local

application of lignocaine to the saphenous nerve, neonatal capsaicin pretreatment, and colchicine at very low doses (120 .mu.g kg-1 day-1 given for 3 days) were found to prevent plasma extravasation elicited by elec. nerve stimulation. The foregoing results demonstrate that the non-peptide NK1-receptor antagonist, RP67580, is a potent inhibitor of plasma extravasation induced in skin by NK1-receptor agonists, by local application of chem. irritants (capsaicin or xylene) or by elec. nerve stimulation. Moreover, **opioid receptor** agonists and colchicine inhibit plasma extravasation induced by elec. nerve stimulation but not that elicited by exogenous SP. Therefore, it

is possible to inhibit neurogenic inflammation either at the presynaptic level with **opioid receptor** agonists and colchicine, or at the postsynaptic level with NK1-receptor antagonists, and that the new non-peptide NK1-receptor antagonists may have a great potential for alleviation of inflammation in various pathol. syndromes in man.

L60 ANSWER 3 OF 4 CAPLUS COPYRIGHT 1999 ACS

AN 1993:400866 CAPLUS

DN 119:866

TI Sensory nerve-mediated relaxation of guinea pig isolated pulmonary artery:

Prejunctional modulation by .alpha.2-adrenoceptor agonists but not sumatriptan

AU Butler, A.; Worton, S. P.; O'Shaughnessy, C. T.; Connor, H. E.

CS Dep. Neuropharmacol., Glaxo Group Res. Ltd., Ware/Herts., SG12 0DP, UK

SO Br. J. Pharmacol. (1993), 109(1), 126-30

CODEN: BJPCBM; ISSN: 0007-1188

DT Journal

LA English

AB Effects of the .alpha.2-adrenoceptor agonists, UK14304 and clonidine, the 5-HT1 receptor agonist, sumatriptan and the .kappa.-**opioid receptor** agonist, GR103545, on sensory neurotransmission in histamine-contracted guinea-pig isolated pulmonary artery (GPPA) have

been studied. Elec. field stimulation (EFS) induced frequency-dependent relaxations of histamine-contracted GPPA, which were attenuated by tetrodotoxin and capsaicin pretreatment but not by the nitric oxide synthase inhibitor, N.omega.-nitro-L-arginine Me ester (L-NAME). **Substance P** (0.3 .mu.M) induced relaxations which were subject to rapid tachyphylaxis. Neither the NK1 receptor antagonist, (+-)-CP 96,345, nor desensitization to **substance P** had any effect on EFS-induced relaxations of histamine-contracted GPPA. Calcitonin gene-related **peptide** (CGRP; 3 and 30 nM) induced concn.-dependent relaxations of histamine-contracted GPPA. The putative CGRP receptor antagonist, CGRP8-37 (1 .mu.M), markedly attenuated EFS-induced relaxations as well as relaxations induced by a low concn. of CGRP. Sumatriptan (0.1 and 1 .mu.M) and the selective .kappa.-**opioid receptor** agonist, GR103545 (10 and 100 nM) had no effect on EFS-induced relaxations of histamine-contracted GPPA. In contrast, the .alpha.2-adrenoceptor agonists UK14304 (1-100 nM) and clonidine (300 nM) attenuated responses to EFS, the attenuation of

UK14304

(100 nM) being reversed by yohimbine (300 nM). It is concluded that in GPPA, where a presynaptic inhibition of sensory neurotransmission by .alpha.2-adrenoceptor activation could be shown, there was no evidence

for

such modulation by either sumatriptan-sensitive 5-HT1 receptors or .kappa.-**opioid receptors**.

L60 ANSWER 4 OF 4 CAPLUS COPYRIGHT 1999 ACS

AN 1986:203669 CAPLUS  
 DN 104:203669  
 TI **Peptides** as modifiers of sodium-induced pinocytosis in starved  
 Amoeba proteus  
 AU Josefsson, Jan Owe; Johansson, Paul  
 CS Dep. Pharmacol., Univ. Lund, Lund, S-222 29, Swed.  
 SO **Peptides** (Fayetteville, N. Y.) (1985), 6(Suppl. 3), 485-8  
 CODEN: PPTDD5; ISSN: 0196-9781  
 DT Journal  
 LA English  
 AB Low concns. of 6 **peptide** hormones, glucagon, vasoactive  
 intestinal **peptide**, **substance P**, angiotensin  
 II, lysine-vasopressin, arginine-vasopressin, and the chemotactic  
**peptide** formyl-Met-Leu-Phe, activated the capacity for pinocytosis  
 in starved A. proteus. Competitive inhibitors of the  
 chemotactic **peptide** in leukocytes inhibited activation by  
 formyl-Met-Leu-Phe, suggesting that its action in the ameba is mediated  
 by  
 specific receptors. ~~The opioid peptides beta-endorphin,~~  
~~dynorphin (1-13) and Leu-enkephalin abolished through a~~  
~~naloxone-sensitive~~  
~~mechanism activation by hormones and several other activating agents.~~  
 Also, low concns. of beef and pork insulin inhibited activation by  
**peptide** hormones. An insulin analog of low potency in mammalian  
 cells was inactive in the ameba. These results support the hypothesis  
 that besides **opioid receptors**, there may be insulin  
 receptors and possibly receptors for several other **peptide**  
 hormones in A. proteus.

=> d l61 1-4 bib ab

L61 ANSWER 1 OF 4 CAPLUS COPYRIGHT 1999 ACS  
 AN 1998:611678 CAPLUS  
 DN 130:10448  
 TI Expression and function of recombinant endothelial nitric oxide synthase  
 gene in canine basilar artery after experimental subarachnoid hemorrhage  
 AU Onoue, Hisashi; Tsutsui, Masato; Smith, Leslie; Stelter, Adele; O'Brien,  
 Timothy; Katusic, Zvonimir S.  
 CS Mayo Medical Center, Rochester, MN, 55905, USA  
 SO Stroke (1998), 29(9), 1959-1966  
 CODEN: SJCCA7; ISSN: 0039-2499  
 PB Williams & Wilkins  
 DT Journal  
 LA English  
 AB Gene transfer with recombinant viral vectors encoding vasodilator  
 proteins  
 may be useful in therapy of cerebral vasospasm after subarachnoid  
 hemorrhage (SAH). Relaxations mediated by nitric oxide are impaired in  
 cerebral arteries affected by SAH. The present study was designed to  
 det.  
 the effect of SAH on the efficiency of ex vivo adenovirus-mediated gene  
 transfer to canine basilar arteries and to examine whether expression of  
 recombinant endothelial nitric oxide synthase (eNOS) gene may have  
 functional effects on vasomotor reactivity of spastic arteries affected  
 by  
 SAH. Replication-deficient recombinant adenovirus vectors encoding  
 bovine  
 eNOS (AdCMVeNOS) and Escherichia coli .beta.-galactosidase  
 (AdCMV.beta.-Gal) genes were used for ex vivo gene transfer. Rings of  
 basilar arteries obtained from control dogs and dogs exposed to SAH were  
 incubated with the vectors in min. essential medium. Twenty-four hours  
 after gene transfer, expression and function of the recombinant genes  
 were

evaluated by (1) histochem. or immunohistochem. staining, (2) .beta.-galactosidase protein measurement, and (3) isometric tension recording. Transduction with AdCMV .beta.-Gal and AdCMVeNOS resulted in the expression of recombinant .beta.-galactosidase and eNOS proteins mostly in the vascular adventitia. The expression of .beta.-galactosidase protein was .apprxeq.2-fold higher in SAH arteries than in normal arteries. Endothelium-dependent relaxations caused by bradykinin and **substance P** were suppressed in SAH arteries. The relaxations to bradykinin were significantly augmented in both normal and SAH arteries after AdCMVeNOS transduction but not after AdCMV .beta.-Gal transduction. The relaxations to **substance P** were augmented by AdCMVeNOS transduction only in normal arteries. Bradykinin and **substance P** caused relaxations even in endothelium-denuded arteries, when the vessels were transduced with AdCMVeNOS. These endothelium-independent (adventitia-dependent) relaxations to bradykinin obsd. after AdCMVeNOS transduction were similar between normal and SAH arteries, whereas those to **substance P** were significantly reduced in SAH arteries compared with normal arteries. These results suggest that expression of recombinant proteins after adenovirus-mediated gene transfer may be enhanced in cerebral arteries affected by SAH and that successful eNOS gene transfer to spastic arteries can at least partly restore the impaired nitric oxide-mediated relaxations through local (adventitial) prodn. of nitric oxide.

L61 ANSWER 2 OF 4 CAPLUS COPYRIGHT 1999 ACS

AN 1997:356537 CAPLUS

DN 126:325515

TI NK-1 receptor antagonists for prevention of neurogenic inflammation in **gene therapy**

IN Piedimonte, Giovanni; Hess, Hans J.; Lowe, John A., III

PA Pfizer Inc., USA; Piedimonte, Giovanni; Hess, Hans, J.; Lowe, John, A., Iii

SO PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9713514	A1	19970417	WO 96-IB1042	19961002
	W: CA, JP, MX, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,				
SE	CA 2228572	AA	19970417	CA 96-2228572	19961002
	EP 854720	A1	19980729	EP 96-931199	19961002
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE,				
FI	JP 10511119	T2	19981027	JP 96-514868	19961002
PRAI	US 95-5002		19951010		
	US 95-6344		19951107		
	US 95-60005002		19951010		
	US 95-60006344		19951107		
	WO 96-IB1042		19961002		

AB The present invention relates to a method of preventing or treating the neurogenic inflammation assocd. with the use of viral vectors in **gene therapy** in a mammal, including a human, by administering to the mammal an NK-1 receptor antagonist (e.g., a **substance P** receptor antagonist).

L61 ANSWER 3 OF 4 CAPLUS COPYRIGHT 1999 ACS

AN 1997:209181 CAPLUS



DN 126:272930  
 TI Replication-deficient adenoviral vector for gene transfer potentiates airway neurogenic inflammation  
 AU Piedimonte, Giovanni; Pickles, Raymond J.; Lehmann, James R.; McCarty, Douglas; Costa, Daniel L.; Boucher, Richard C.  
 CS Departments of Pediatrics, Medicine, and Pharmacology, University of Miami  
 School of Medicine, Miami, FL, USA  
 SO Am. J. Respir. Cell Mol. Biol. (1997), 16(3), 250-258  
 CODEN: AJRBEL; ISSN: 1044-1549  
 PB American Lung Association  
 DT Journal  
 LA English  
 AB Human trials for the treatment of cystic fibrosis lung disease with adenoviral vectors have been complicated by acute inflammatory reactions of unknown etiol. Because replicating respiratory viruses can potentiate tachykinin-mediated neurogenic inflammatory responses in airways, we studied whether the endotracheal administration of a replication-deficient adenoviral vector potentiated this response. The vector Ad5CMVLacZ was administered endotracheally to rats and the leakage of Evans blue dye was used to measure the capsaicin-induced neurogenic albumin extravasation. These studies show that neurogenic albumin extravasation is significantly potentiated in the airways of rats after administration of Ad5CMVLacZ. This inflammatory response can be blocked by selective antagonists of the **substance P** receptor or by glucocorticoids. Therefore, (1) the acute airway inflammation obsd. in patients after exposure to adenoviral vectors may exhibit a neurogenic component, which can be blocked pharmacol., and (2) preclin. adenoviral vector safety studies of other organs innervated by the tachykinin system, e.g., coronary arteries and gastrointestinal tract, should include assessment of neurogenic inflammation.

L61 ANSWER 4 OF 4 CAPLUS COPYRIGHT 1999 ACS

AN 1993:597277 CAPLUS

DN 119:197277

TI Human epidermal type I transglutaminase gene promoter and its use in tissue-specific expression of genes

IN Polakowska, Renata Regina; Goldsmith, Lowell Alan

PA Research Corp. Technologies, Inc., USA

SO PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9315209	A1	19930805	WO 93-US537	19930122
	W: JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP	625206	A1	19941123	EP 93-903613	19930122
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT,				
SE	JP 07505764	T2	19950629	JP 93-513319	19930122
	US 5643746	A	19970701	US 94-216219	19940321
PRAI	US 92-826931		19920123		
	WO 93-US537		19930122		
	US 93-73190		19930608		

AB The title promoter is cloned and characterized. This promoter may be used for tissue-specific expression of genes, e.g., in **gene therapy** or for testing of pharmaceutical agents with artificial skin (no data). The promoter was found to contain a keratinocyte-specific

regulatory element, Ca2+- and retinoic acid-responding regulatory elements, and a TATA box.

=> d 162 1-4 bib ab

L62 ANSWER 1 OF 1 CAPLUS COPYRIGHT 1999 ACS

AN 1968:113250 CAPLUS

DN 68:113250

TI Effects of chronic administration of some psychoactive drugs on electroencephalogram arousal on rabbit

AU Doyle, Colin S.; Shimizu, Akira; Himwich, Harold E.

CS Galesburg State Res. Hosp., Galesburg, Ill., USA

SO Int. J. Neuropharmacol. (1968), 7(2), 87-95

CODEN: IJNEAQ

DT Journal

LA English

AB Rabbits (88) were injected for 9-30 days with 1 of 4 phenothiazines; chlorpromazine, triflupromazine, perphenazine, and trifluoperazine, and the effects on electroencephalogram (EEG) were studied. The dose levels were 4.2 and 21 micromoles/kg./day and the EEG observations were made

from

9 to 30 days of chronic drug administration and therefore, after the effects of chronic dosage had been established. EEG recordings were made .apprx.18 hrs. after the last previous injection. The phenothiazines, given chronically at the lower dose level, provoked a trend toward EEG activation. With the exception of triflupromazine, further activation occurred with the higher dose level. In addn., 20 rabbits injected chronically for 9-30 days at the same dosage levels with the antidepressants, imipramine and amitriptyline, also showed activation of the EEG. Six pairs of adult male and female uncurarized, unanesthetized rabbits were studied with chronically implanted electrodes for simultaneous changes in EEG, eye movements, and the electromyogram (EMG) of neck muscles during the 2-10 days of chronic drug dosage. The dosages were as follows: chlorpromazine 7 mg./kg., triflupromazine 6.3 mg./kg., trifluoperazine 4.1 mg./kg., perphenazine

5.1

mg./kg., imipramine 5 mg./kg., and amitriptyline 5.4 mg./kg. All animals exhibited increased durations of EEG activation. These changes were assocd. behaviorally with the waking state and were not accompanied by

the

changes in eye movements nor in EMG, characteristic of paradoxical sleep. 29 references.

=> d 165 1-7 bib ab

L65 ANSWER 1 OF 7 CAPLUS COPYRIGHT 1999 ACS

AN 1998:424352 CAPLUS

DN 129:64089

TI Preparation of high-titer VSV-G-pseudo-type retrovirus vector for gene therapy

IN Iba, Hideo; Arai, Tohru

PA Eisai Co., Ltd., Japan; Iba, Hideo; Arai, Tohru .

SO PCT Int. Appl., 63 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9827217	A1	19980625	WO 97-JP4592	19971212
	W: JP, US				

SE

PRAI JP 96-335433 19961216

JP 97-159538 19970617

AB Disclosed is a method for prepg. a high-titer VSV (Vesicular stomatitis virus)-G-pseudo-type retrovirus vector for transferring foreign genes into

target cells. A pre-packaging cell line is prepd. by introducing a DNA construct comprised of, in order, a promoter, an loxP sequence, a drug resistance gene, a polyadenylation signal, a VSV-G gene, and a polyadenylation signal, into a cell line carrying a retrovirus gag and

pol

gene expression system. The high-titer pseudo-type retrovirus vector is obtained by introducing into the above cell line a retrovirus vector contg. the desired foreign genes, followed by treatment with recombinase. By regulating the prodn. of cytotoxic VSV-G gene protein product, the pseudo-type retrovirus vector can be efficiently produced. Furthermore, by adding a neg.-charge high-mol. substance into the producer cell

culture

to inhibit re-infection, the yield of the vector can be enhanced.

L65 ANSWER 2 OF 7 CAPLUS COPYRIGHT 1999 ACS

AN 1998:52598 CAPLUS

DN 128:152494

TI Membrane-associated heparan sulfate proteoglycan is a receptor for adeno-associated virus type 2 virions

AU Summerford, Candace; Samulski, Riachrd Jude

CS Gene Therapy Cent. Dep. Pharmacol., Univ. North Carolina Chapel Hill, Chapel Hill, NC, 27599, USA

SO J. Virol. (1998), 72(2), 1438-1445

CODEN: JOVIAM; ISSN: 0022-538X

PB American Society for Microbiology

DT Journal

LA English

AB The human parvovirus adeno-assocd. virus (AAV) infects a broad range of cell types, including human, nonhuman primate, canine, murine, and avian. Although little is known about the initial events of virus infection, AAV is currently being developed as a vector for human **gene therapy**. Using defined mutant CHO cell lines and std. biochem. assays, the authors demonstrate that heparan sulfate proteoglycans

mediate

both AAV attachment to and infection of target cells. Competition expts. using heparin, a sol. receptor analog, demonstrated dose-dependent inhibition of AAV attachment and infection. Enzymic removal of heparan but not **chondroitin sulfate** moieties from the cell surface greatly reduced AAV attachment and infectivity. Finally, mutant cell lines that do not produce heparan sulfate proteoglycans were significantly impaired for both AAV binding and infection. This is the first report that proteoglycan has a role in cellular attachment of a parvovirus. Together, these results demonstrate that membrane-assocd. heparan sulfate proteoglycan serves as the viral receptor for AAV type 2, and provide an explanation for the broad host range of AAV. Identification of heparan sulfate proteoglycan as a viral receptor should facilitate development of new reagents for virus purifn. and provide

crit.

information on the use of AAV as a **gene therapy** vector.

L65 ANSWER 3 OF 7 CAPLUS COPYRIGHT 1999 ACS

AN 1997:299861 CAPLUS

DN 127:366

TI Retroviral gene transfer is inhibited by **chondroitin sulfate** proteoglycans/glycosaminoglycans in malignant pleural

(1994 Sep) 15 (3) 275-300. Ref: 116

Journal code: E4M. ISSN: 0091-3022.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, ACADEMIC)

LA English

FS Priority Journals

EM 199505

L16 ANSWER 82 OF 182 MEDLINE

AN 95161011 MEDLINE

DN 95161011

TI **Inhibitory** effects of salmon calcitonin on the tail-biting and scratching behavior induced by **substance P** and three excitatory amino acids.

AU Maeda Y; Yamada K; Hasegawa T; Iyo M; Fukui S; Nabeshima T

CS Department of Neuropsychopharmacology and Hospital Pharmacy, Nagoya University School of Medicine, Japan..

SO JOURNAL OF NEURAL TRANSMISSION. GENERAL SECTION, (1994) 96 (2) 125-33.

Journal code: AJ2. ISSN: 0300-9564.

CY Austria

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199505

L16 ANSWER 83 OF 182 MEDLINE

AN 95157054 MEDLINE

DN 95157054

TI [Effects of tachykinin antagonists on **pain**].

Effekter av takykinin-antagonister pa smarta.

AU Wiesenfeld-Hallin Z

CS Institutionen for medicinsk laboratorievetenskap och teknik, Karolinska institutet, Huddinge..

SO LAKARTIDNINGEN, (1995 Feb 8) 92 (6) 532-3.

Journal code: LON. ISSN: 0023-7205.

CY Sweden

DT Journal; Article; (JOURNAL ARTICLE)

LA Swedish

EM 199505

L16 ANSWER 84 OF 182 MEDLINE

AN 95149295 MEDLINE

DN 95149295

TI Pharmacological studies of stonefish (*Synanceja trachynis*) venom.

AU Hopkins B J; Hodgson W C; Sutherland S K

CS Department of Pharmacology, Monash University, Clayton, Victoria, Australia..

SO TOXICON, (1994 Oct) 32 (10) 1197-210.

Journal code: VWT. ISSN: 0041-0101.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199505

L16 ANSWER 85 OF 182 MEDLINE

AN 95147987 MEDLINE

DN 95147987

TI Spinal antinociception by morphine in rats is antagonised by galanin receptor antagonists.

AU Reimann W; Englberger W; Friderichs E; Selve N; Wilffert B

CS Abteilung Pharmakologie, Grunenthal GmbH, Aachen, Germany..

SO NAUNYN-SCHMIEDEBERGS ARCHIVES OF PHARMACOLOGY, (1994 Oct) 350 (4) 380-6.

Journal code: NTQ. ISSN: 0028-1298.

CY GERMANY: Germany, Federal Republic of

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199505

L16 ANSWER 86 OF 182 MEDLINE

AN 95141810 MEDLINE

DN 95141810

TI Substance P in intervertebral discs. Binding sites on vascular endothelium of the human annulus fibrosus.

AU Ashton I K; Walsh D A; Polak J M; Eisenstein S M

CS Centre for Spinal Studies, Robert Jones and Agnes Hunt Orthopedic Hospital, Oswestry, UK..

SO ACTA ORTHOPAEDICA SCANDINAVICA, (1994 Dec) 65 (6) 635-9.

Journal code: LGO. ISSN: 0001-6470.

CY Norway

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199505

L16 ANSWER 87 OF 182 MEDLINE

AN 95073036 MEDLINE

DN 95073036

TI The calcitonin gene-related peptide antagonist CGRP8-37 increases the latency to withdrawal responses in rats [published erratum appears in Brain Res 1994 Dec 15;666(2):295].

AU Yu L C; Hansson P; Lundberg T

CS Department of Physiology and Pharmacology, Karolinska Institutet, Stockholm, Sweden..

SO BRAIN RESEARCH, (1994 Aug 8) 653 (1-2) 223-30.

Journal code: B5L. ISSN: 0006-8993.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199503

L16 ANSWER 88 OF 182 MEDLINE

AN 95060292 MEDLINE

DN 95060292

TI Substance P released endogenously by high-intensity sensory stimulation potentiates purinergic inhibition of nociceptive dorsal horn neurons induced by peripheral vibration.

AU De Koninck Y; Salter M W; Henry J L

CS Department of Physiology, McGill University, Montreal, Quebec, Canada.

SO NEUROSCIENCE LETTERS, (1994 Jul 18) 176 (1) 128-32.

Journal code: N7N. ISSN: 0304-3940.

CY Ireland

DT Journal; Article; (JOURNAL ARTICLE)

response to rectal distension in rats.

AU Julia V; Morteau O; Bueno L  
 CS Department of Pharmacology, Institut National de la Recherche  
 Agronomique,  
 Toulouse, France..  
 SO GASTROENTEROLOGY, (1994 Jul) 107 (1) 94-102.  
 Journal code: FH3. ISSN: 0016-5085.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
 EM 199410

L16 ANSWER 93 OF 182 MEDLINE  
 AN 94277603 MEDLINE  
 DN 94277603  
 TI Antinociception following implantation of mouse B16 melanoma cells in  
 mouse and rat spinal cord.  
 AU Wu H H; Lester B R; Sun Z; Wilcox G L  
 CS Department of Pharmacology, University of Minnesota, Minneapolis 55455.  
 NC 1-R01-DA-01933 (NIDA)  
 1-R01-DA-04274 (NIDA)  
 1-K02-DA-00145 (NIDA)  
 SO PAIN, (1994 Feb) 56 (2) 203-10.  
 Journal code: OPF. ISSN: 0304-3959.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199409

L16 ANSWER 94 OF 182 MEDLINE  
 AN 94272953 MEDLINE  
 DN 94272953  
 TI Adrenalectomy increases the number of **substance P** and  
 somatostatin immunoreactive nerve cells in the rat lumbar dorsal root  
 ganglia.  
 AU Covenas R; DeLeon M; Chadi G; Cintra A; Gustafsson J A; Narvaez J A; Fuxe  
 K  
 CS Department of Neuroscience, Karolinska Institute, Stockholm, Sweden..  
 SO BRAIN RESEARCH, (1994 Mar 21) 640 (1-2) 352-6.  
 Journal code: B5L. ISSN: 0006-8993.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199409

L16 ANSWER 95 OF 182 MEDLINE  
 AN 94253049 MEDLINE  
 DN 94253049  
 TI Interaction of glutamine 165 in the fourth transmembrane segment of the  
 human neurokinin-1 **receptor** with quinuclidine antagonists.  
 AU Fong T M; Yu H; Cascieri M A; Underwood D; Swain C J; Strader C D  
 CS Department of Molecular Pharmacology and Biochemistry, Merck Research  
 Laboratories, Rahway, New Jersey 07065.  
 SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1994 May 27) 269 (21) 14957-61.  
 Journal code: HIV. ISSN: 0021-9258.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199409

L16 ANSWER 96 OF 182 MEDLINE  
 AN 94196646 MEDLINE  
 DN 94196646  
 TI Messenger plasticity in primary sensory neurons following axotomy and its functional implications [see comments].  
 CM Comment in: Trends Neurosci 1994 Aug;17(8):339  
 AU Hokfelt T; Zhang X; Wiesenfeld-Hallin Z  
 CS Dept of Neuroscience, Huddinge University Hospital, Karolinska Institute, Stockholm, Sweden..  
 SO TRENDS IN NEUROSCIENCES, (1994 Jan) 17 (1) 22-30. Ref: 113  
 Journal code: WEL. ISSN: 0166-2236.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199407

L16 ANSWER 97 OF 182 MEDLINE  
 AN 94138683 MEDLINE  
 DN 94138683  
 TI ~~Antinociceptive activity of NK1 receptor~~ antagonists:  
 non-specific effects of racemic RP67580.  
 AU Rupniak N M; Boyce S; Williams A R; Cook G; Longmore J; Seabrook G R;  
 Caesar M; Iversen S D; Hill R G  
 CS Merck Sharp and Dohme Research Laboratories, Neuroscience Research  
 Centre,  
 Harlow, Essex.  
 SO ~~BRITISH JOURNAL OF PHARMACOLOGY~~, (1993 Dec) 110 (4) 1607-13.  
 Journal code: B00. ISSN: 0007-1188.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199405

L16 ANSWER 98 OF 182 MEDLINE  
 AN 94116576 MEDLINE  
 DN 94116576  
 TI Intrathecal 5-methoxy-N,N-dimethyltryptamine in mice modulates 5-HT1 and 5-HT3 receptors.  
 AU Alhaider A A; Hamon M; Wilcox G L  
 CS Department of Pharmacology, Medical School, University of Minnesota, MN 55455..  
 NC NIDA R01-DA-01933 (NIDA)  
 NIDA R01-DA-04274 (NIDA)  
 NIDA K02-DA-00145 (NIDA)  
 SO EUROPEAN JOURNAL OF PHARMACOLOGY, (1993 Nov 9) 249 (2) 151-60.  
 Journal code: EN6. ISSN: 0014-2999.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199404

L16 ANSWER 99 OF 182 MEDLINE  
 AN 94074592 MEDLINE  
 DN 94074592  
 TI Evidence for a role of tachykinin NK2 receptors in mediating brief nociceptive inputs to rat dorsal horn (laminae III-V) neurons.  
 AU Fleetwood-Walker S M; Parker R M; Munro F E; Young M R; Hope P J;  
 Mitchell

R  
 CS Department of Preclinical Veterinary Sciences, Royal (Dick) School of  
 Veterinary Studies, University of Edinburgh, UK..  
 SO EUROPEAN JOURNAL OF PHARMACOLOGY, (1993 Sep 28) 242 (2) 173-81.  
 Journal code: EN6. ISSN: 0014-2999.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199403

L16 ANSWER 100 OF 182 MEDLINE  
 AN 94067453 MEDLINE  
 DN 94067453  
 TI Hypoalgesic action of bestatin analogues that inhibit central  
 aminopeptidases, but not neutral endopeptidase.  
 AU Otero M J; Iglesias T; Fuentes J A  
 CS Department of Pharmacology, School of Medicine, Universidad Complutense,  
 Madrid, Spain.  
 SO NEUROPEPTIDES, (1993 Sep) 25 (3) 175-82.  
 Journal code: NZC. ISSN: 0143-4179.  
 CY SCOTLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199403

=> d his

(FILE 'HOME' ENTERED AT 12:06:01 ON 11 MAR 1999)

FILE 'MEDLINE' ENTERED AT 12:06:07 ON 11 MAR 1999

L1 14388 S (SUBSTANCE P)  
 L2 914806 S (BLOCK? OR INHIBIT?)  
 L3 423130 S (RECEPTOR)  
 L4 8396 S (GENE THERAPY)  
 L5 4498 S L1 AND L3  
 L6 0 S L5 AND L4  
 L7 1 S L1 AND L4  
 L8 148499 S PAIN  
 L9 974 S L1 AND L8  
 L10 367 S L9 AND L2  
 L11 0 S L4 AND L9  
 L12 328 S L5 AND L9  
 L13 0 S L5 AND L4  
 L14 18 S L8 AND L4  
 L15 0 S L14 AND L5  
 L16 182 S L1 AND L2 AND L3 AND L8

=> s peptide

195387 PEPTIDE  
 120916 PEPTIDES  
 L17 261115 PEPTIDE  
 (PEPTIDE OR PEPTIDES)

=> s l1 and l3 and l2 and l17

L18 1328 L1 AND L3 AND L2 AND L17

=> s l1 and l2



L19 5509 L1 AND L2

=> s 119 and 117

L20 2640 L19 AND L17

=> s (peptide inhibitor)

195387 PEPTIDE

120916 PEPTIDES

261115 PEPTIDE

(PEPTIDE OR PEPTIDES)

143585 INHIBITOR

315277 INHIBITORS

383923 INHIBITOR

(INHIBITOR OR INHIBITORS)

L21 644 (PEPTIDE INHIBITOR)

(PEPTIDE (W) INHIBITOR)

=> s 119 and 121

L22 2 L19 AND L21

=> d 1-2 bib ab

L22 ANSWER 1 OF 2 MEDLINE

AN 91274298 MEDLINE

DN 91274298

TI Human fibroblast stromelysin catalytic domain: expression, purification, and characterization of a C-terminally truncated form.

AU Marcy A I; Eiberger L L; Harrison R; Chan H K; Hutchinson N I; Hagmann W K; Cameron P M; Boulton D A; Hermes J D

CS Department of Biophysical Chemistry, Merck Sharp & Dohme Research Laboratories, Rahway, New Jersey 07065.

SO BIOCHEMISTRY, (1991 Jul 2) 30 (26) 6476-83.

Journal code: AOG. ISSN: 0006-2960.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199110

AB Stromelysin-1 is a member of a tissue metalloproteinase family whose members are all capable of degrading extracellular matrix components. A truncated form of human fibroblast prostromelysin 1 lacking the C-terminal, hemopexin-like domain has been expressed in *Escherichia coli* and purified to homogeneity. Treatment of this short form of prostromelysin with (aminophenyl)mercuric acetate resulted in activation and loss of the propeptide in a manner identical with the wild-type, full-length protein. Kinetic comparisons using Nle11-substance P as a substrate showed that the wild-type stromelysin and the truncated form of the enzyme had similar *k*<sub>cat</sub> and *K*<sub>m</sub> values. Likewise, both enzymes displayed similar *K*<sub>i</sub> values for a hydroxamate-containing peptide inhibitor. Taken together, these results indicate that the C-terminal portion of stromelysin is not required for proper folding of the catalytic domain, maintenance of the enzyme in a latent form, activation with an organomercurial, cleavage of a peptide substrate, or interaction with an inhibitor. Moreover, the active short form of stromelysin displayed a reduction in the C-terminal heterogeneity, a characteristic degradation of the full-length stromelysin, and thereby provides a more suitable protein for future structural studies.

L22 ANSWER 2 OF 2 MEDLINE  
 AN 86157974 MEDLINE  
 DN 86157974  
 TI Contraction of guinea-pig lung parenchymal strips by substance P and related peptides.  
 AU Foreman J C; Shelly R; Webber S E  
 SO ARCHIVES INTERNATIONALES DE PHARMACODYNAMIE ET DE THERAPIE, (1985 Dec)  
 278  
 (2) 193-206.  
 Journal code: 7EK. ISSN: 0003-9780.  
 CY Belgium  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198606  
 AB A dose-response relationship for substance P and contraction of the lung parenchyma strip of the guinea-pig could only be obtained in the presence of a mixture of bacitracin, 1,4 dithio-L-threitol and ethylenediamine tetracetic acid, all at 100 microM, or in the presence of captopril, 1.8 mM. Substance P (50 nM) caused no contraction by itself but produced a shift to the left of the dose-response curve for histamine with a mean dose-ratio of 1.4 +/- 0.2 (S.E. of mean). The peptides physalaemin, eledoisin and kassinin were all approximately equipotent with substance P on the lung strip, in the presence of peptides inhibitors. [D-Pro4, D-Trp7,9,10]-SP4-11, produced dose-related inhibition of the contraction induced by substance P. Substance P activity in guinea-pig lung declined exponentially with a half-time of 2.3 min: bacitracin, dithiothreitol and EDTA (all 100 microM) increased this to 7.2 min and captopril (1.8 mM) to 5.1 min.

=> d his

(FILE 'HOME' ENTERED AT 12:06:01 ON 11 MAR 1999)

FILE 'MEDLINE' ENTERED AT 12:06:07 ON 11 MAR 1999

L1 14388 S (SUBSTANCE P)  
 L2 914806 S (BLOCK? OR INHIBIT?)  
 L3 423130 S (RECEPTOR)  
 L4 8396 S (GENE THERAPY)  
 L5 4498 S L1 AND L3  
 L6 0 S L5 AND L4  
 L7 1 S L1 AND L4  
 L8 148499 S PAIN  
 L9 974 S L1 AND L8  
 L10 367 S L9 AND L2  
 L11 0 S L4 AND L9  
 L12 328 S L5 AND L9  
 L13 0 S L5 AND L4  
 L14 18 S L8 AND L4  
 L15 0 S L14 AND L5  
 L16 182 S L1 AND L2 AND L3 AND L8  
 L17 261115 S PEPTIDE  
 L18 1328 S L1 AND L3 AND L2 AND L17  
 L19 5509 S L1 AND L2  
 L20 2640 S L19 AND L17  
 L21 644 S (PEPTIDE INHIBITOR)  
 L22 2 S L19 AND L21

=> s l1 and l21

L23            2 L1 AND L21

=> s (substance P receptor)

99866 SUBSTANCE  
67546 SUBSTANCES  
162044 SUBSTANCE  
              (SUBSTANCE OR SUBSTANCES)

1604068 P  
279843 RECEPTOR  
343611 RECEPTORS  
423130 RECEPTOR  
              (RECEPTOR OR RECEPTORS)

L24            479 (SUBSTANCE P RECEPTOR)  
                      (SUBSTANCE (W) P (W) RECEPTOR)

=> d l24 and l21

L21 IS NOT VALID HERE

For an explanation, enter "HELP DISPLAY".

=> s l24 and l21

L25            0 L24 AND L21

=> s (substance p analog)

99866 SUBSTANCE  
67546 SUBSTANCES  
162044 SUBSTANCE  
              (SUBSTANCE OR SUBSTANCES)

1604068 P  
26818 ANALOG  
259398 ANALOGS  
276746 ANALOG  
              (ANALOG OR ANALOGS)

L26            70 (SUBSTANCE P ANALOG)  
                      (SUBSTANCE (W) P (W) ANALOG)

=> d his

(FILE 'HOME' ENTERED AT 12:06:01 ON 11 MAR 1999)

FILE 'MEDLINE' ENTERED AT 12:06:07 ON 11 MAR 1999

L1            14388 S (SUBSTANCE P)  
L2            914806 S (BLOCK? OR INHIBIT?)  
L3            423130 S (RECEPTOR)  
L4            8396 S (GENE THERAPY)  
L5            4498 S L1 AND L3  
L6            0 S L5 AND L4  
L7            1 S L1 AND L4  
L8            148499 S PAIN  
L9            974 S L1 AND L8  
L10           367 S L9 AND L2  
L11           0 S L4 AND L9  
L12           328 S L5 AND L9  
L13           0 S L5 AND L4  
L14           18 S L8 AND L4  
L15           0 S L14 AND L5  
L16           182 S L1 AND L2 AND L3 AND L8

L17 261115 S PEPTIDE  
 L18 1328 S L1 AND L3 AND L2 AND L17  
 L19 5509 S L1 AND L2  
 L20 2640 S L19 AND L17  
 L21 644 S (PEPTIDE INHIBITOR)  
 L22 2 S L19 AND L21  
 L23 2 S L1 AND L21  
 L24 479 S (SUBSTANCE P RECEPTOR)  
 L25 0 S L24 AND L21  
 L26 70 S (SUBSTANCE P ANALOG)

=> s l24 and 14

L27 0 L24 AND L4

=> s l24 and 18

L28 31 L24 AND L8

=> d 1-31

L28 ANSWER 1 OF 31 MEDLINE  
 AN 1999049795 MEDLINE  
 DN 99049795  
 TI The substance P receptor antagonist  
 CP-99,994 reduces acute postoperative pain.  
 AU Dionne R A; Max M B; Gordon S M; Parada S; Sang C; Gracely R H; Sethna N  
 F; MacLean D B  
 CS Pain and Neurosensory Mechanisms Branch, National Institute of Dental  
 Research, National Institutes of Health, Bethesda, MD 20892-1258, USA.  
 NC Z01 DE 00286 NA (NIDR)  
 Z01 DE 00366 NA (NIDR)  
 SO CLINICAL PHARMACOLOGY AND THERAPEUTICS, (1998 Nov) 64 (5) 562-8.  
 Journal code: DHR. ISSN: 0009-9236.  
 CY United States  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 199902  
 EW 19990204

L28 ANSWER 2 OF 31 MEDLINE  
 AN 1998343531 MEDLINE  
 DN 98343531  
 TI High affinity binding sites for [3H]substance P in urinary bladders of  
 cats with interstitial cystitis [see comments].  
 CM Comment in: J Urol 1998 Aug;160(2):298  
 AU Buffington C A; Wolfe S A Jr  
 CS Department of Veterinary Clinical Sciences, The Ohio State University,  
 Columbus, USA.  
 NC DK 47538 (NIDDK)  
 SO JOURNAL OF UROLOGY, (1998 Aug) 160 (2) 605-11.  
 Journal code: KC7. ISSN: 0022-5347.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
 EM 199810  
 EW 19981003

L28 ANSWER 3 OF 31 MEDLINE  
 AN 1998176577 MEDLINE  
 DN 98176577  
 TI Involvement of spinal substance P and excitatory amino acids in inflammatory hyperalgesia in rats.  
 AU Okano K; Kuraishi Y; Satoh M  
 CS Department of Molecular Pharmacology, Faculty of Pharmaceutical Sciences, Kyoto University, Japan.  
 SO JAPANESE JOURNAL OF PHARMACOLOGY, (1998 Jan) 76 (1) 15-22.  
 Journal code: KO7. ISSN: 0021-5198.  
 CY Japan  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199807  
 EW 19980703

L28 ANSWER 4 OF 31 MEDLINE  
 AN 1998147387 MEDLINE  
 DN 98147387  
 TI Increased expression of **substance P receptor**-encoding mRNA in bladder biopsies from patients with interstitial cystitis.  
 AU Marchand J E; Sant G R; Kream R M  
 CS Department of Anaesthesiology, New England Medical Center, Tufts University School of Medicine, Boston, Massachusetts, USA.  
 SO BRITISH JOURNAL OF UROLOGY, (1998 Feb) 81 (2) 224-8.  
 Journal code: B3K. ISSN: 0007-1331.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199805  
 EW 19980502

L28 ANSWER 5 OF 31 MEDLINE  
 AN 97465978 MEDLINE  
 DN 97465978  
 TI Inhibition of hyperalgesia by ablation of lamina I spinal neurons expressing the **substance P receptor** [see comments].  
 CM Comment in: Science 1997 Oct 10;278(5336):239-40  
 AU Mantyh P W; Rogers S D; Honore P; Allen B J; Ghilardi J R; Li J; Daughters R S; Lappi D A; Wiley R G; Simone D A  
 CS Molecular Neurobiology Laboratory (151), Veterans Administration Medical Center, Minneapolis, MN 55417, USA.. manty001@maroon.tc.umn.edu  
 NC NS23970 (NINDS)  
 NS31223 (NINDS)  
 MH56368 (NIMH)  
 SO SCIENCE, (1997 Oct 10) 278 (5336) 275-9.  
 Journal code: UJ7. ISSN: 0036-8075.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199712  
 EW 19971204

L28 ANSWER 6 OF 31 MEDLINE  
 AN 97263574 MEDLINE  
 DN 97263574  
 TI NMDA-receptor regulation of substance P release from primary afferent

nociceptors.  
 AU Liu H; Mantyh P W; Basbaum A I  
 CS Department of Anatomy, University of California San Francisco, 94143,  
 USA.  
 SO NATURE, (1997 Apr 17) 386 (6626) 721-4.  
 Journal code: NSC. ISSN: 0028-0836.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199707  
 EW 19970702

L28 ANSWER 7 OF 31 MEDLINE  
 AN 97222221 MEDLINE  
 DN 97222221  
 TI Cutaneous vasodilation during dorsal column stimulation is mediated by  
 dorsal roots and CGRP.  
 AU Croom J E; Foreman R D; Chandler M J; Barron K W  
 CS Department of Physiology, University of Oklahoma Health Sciences Center,  
 Oklahoma City 73190, USA.  
 NC HL-22732 (NHLBI)  
 SO AMERICAN JOURNAL OF PHYSIOLOGY, (1997 Feb) 272 (2 Pt 2) H950-7.  
 Journal code: 3U8. ISSN: 0002-9513.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199706  
 EW 19970604

L28 ANSWER 8 OF 31 MEDLINE  
 AN 97052180 MEDLINE  
 DN 97052180  
 TI Localization and activation of **substance P**  
**receptors** in unmyelinated axons of rat glabrous skin.  
 AU Carlton S M; Zhou S; Coggeshall R E  
 CS Department of Anatomy and Neurosciences, University of Texas Medical  
 Branch, Galveston 77555-1069, USA.  
 NC NS11255 (NINDS)  
 NS27910 (NINDS)  
 NS10161 (NINDS)  
 SO BRAIN RESEARCH, (1996 Sep 23) 734 (1-2) 103-8.  
 Journal code: B5L. ISSN: 0006-8993.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199704  
 EW 19970404

L28 ANSWER 9 OF 31 MEDLINE  
 AN 97008019 MEDLINE  
 DN 97008019  
 TI Visualization of the thymus by **substance P**  
**receptor** scintigraphy in man.  
 AU van Hagen P M; Breeman W A; Reubi J C; Postema P T; van den  
 Anker-Lugtenburg P J; Kwekkeboom D J; Laissue J; Waser B; Lamberts S W;  
 Visser T J; Krenning E P  
 CS Department of Immunology, Erasmus University Rotterdam, The Netherlands.  
 SO EUROPEAN JOURNAL OF NUCLEAR MEDICINE, (1996 Nov) 23 (11) 1508-13.  
 Journal code: ENC. ISSN: 0340-6997.  
 CY GERMANY: Germany, Federal Republic of

DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199705

L28 ANSWER 10 OF 31 MEDLINE  
 AN 96377034 MEDLINE  
 DN 96377034  
 TI Distribution of trigeminothalamic and spinothalamic-tract neurons showing substance P receptor-like immunoreactivity in the rat.  
 AU Li J L; Ding Y Q; Shigemoto R; Mizuno N  
 CS Department of Morphological Brain Science, Faculty of Medicine, Kyoto University, Japan.  
 SO BRAIN RESEARCH, (1996 May 6) 719 (1-2) 207-12.  
 Journal code: B5L. ISSN: 0006-8993.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199704  
 EW 19970402

L28 ANSWER 11 OF 31 MEDLINE  
 AN 96264539 MEDLINE  
 DN 96264539  
 TI Spinal cord substance P receptor immunoreactivity increases in both inflammatory and nerve injury models of persistent pain.  
 AU Abbadie C; Brown J L; Mantyh P W; Basbaum A I  
 CS Department of Anatomy, University of California San Francisco 94143, USA.  
 NC NS 21445 (NINDS)  
 NS 14627 (NINDS)  
 DA 08377 (NIDA)  
 SO NEUROSCIENCE, (1996 Jan) 70 (1) 201-9.  
 Journal code: NZR. ISSN: 0306-4522.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199612

L28 ANSWER 12 OF 31 MEDLINE  
 AN 95060292 MEDLINE  
 DN 95060292  
 TI Substance P released endogenously by high-intensity sensory stimulation potentiates purinergic inhibition of nociceptive dorsal horn neurons induced by peripheral vibration.  
 AU De Koninck Y; Salter M W; Henry J L  
 CS Department of Physiology, McGill University, Montreal, Quebec, Canada.  
 SO NEUROSCIENCE LETTERS, (1994 Jul 18) 176 (1) 128-32.  
 Journal code: N7N. ISSN: 0304-3940.  
 CY Ireland  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199502

L28 ANSWER 13 OF 31 MEDLINE  
 AN 94294172 MEDLINE  
 DN 94294172

TI Examination of tonic nociceptive behavior using a method of  
 substance P-receptor desensitization in the  
 dorsal horn.  
 AU Holland L N; Goldstein B D  
 CS Department of Pharmacology and Toxicology, Medical College of Georgia,  
 Augusta 30912..  
 SO PAIN, (1994 Mar) 56 (3) 339-46.  
 Journal code: OPF. ISSN: 0304-3959.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199410

L28 ANSWER 14 OF 31 MEDLINE  
 AN 94138683 MEDLINE  
 DN 94138683  
 TI Antinociceptive activity of NK1 receptor antagonists: non-specific  
 effects  
 of racemic RP67580.  
 AU Rupniak N M; Boyce S; Williams A R; Cook G; Longmore J; Seabrook G R;  
 Caesar M; Iversen S D; Hill R G  
 CS Merck Sharp and Dohme Research Laboratories, Neuroscience Research  
 Centre,  
 Harlow, Essex.  
 SO BRITISH JOURNAL OF PHARMACOLOGY, (1993 Dec) 110 (4) 1607-13.  
 Journal code: B00. ISSN: 0007-1188.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199405

L28 ANSWER 15 OF 31 MEDLINE  
 AN 94023106 MEDLINE  
 DN 94023106  
 TI Substance P receptor (NK-1) in the central  
 nervous system: possible functions from a morphological aspect.  
 AU Kiyama H; Maeno H; Tohyama M  
 CS Department of Anatomy and Neuroscience, Osaka University Medical School,  
 Japan..  
 SO REGULATORY PEPTIDES, (1993 Jul 2) 46 (1-2) 114-23. Ref: 21  
 Journal code: RBB. ISSN: 0167-0115.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199401

L28 ANSWER 16 OF 31 MEDLINE  
 AN 93324075 MEDLINE  
 DN 93324075  
 TI Opioid and substance P receptor adaptations  
 in the rat spinal cord following sub-chronic intrathecal treatment with  
 morphine and naloxone.  
 AU Gouarderes C; Jhamandas K; Cridland R; Cros J; Quirion R; Zajac J M  
 CS Laboratoire de Pharmacologie et de Toxicologie Fondamentales, C.N.R.S.,  
 Toulouse, France..  
 SO NEUROSCIENCE, (1993 Jun) 54 (3) 799-807.  
 Journal code: NZR. ISSN: 0306-4522.  
 CY ENGLAND: United Kingdom



DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199310

L28 ANSWER 17 OF 31 MEDLINE

AN 93196850 MEDLINE

DN 93196850

TI CP-96,345, but not its stereoisomer, CP-96,344, blocks the nociceptive responses to intrathecally administered substance P and to noxious thermal

and chemical stimuli in the rat.

AU Yashpal K; Radhakrishnan V; Coderre T J; Henry J L

CS Department of Psychiatry, McGill University, Montreal, Quebec, Canada.

NC NS261415 (NINDS)

SO NEUROSCIENCE, (1993 Feb) 52 (4) 1039-47.

Journal code: NZR. ISSN: 0306-4522.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199306

L28 ANSWER 18 OF 31 MEDLINE

AN 93137066 MEDLINE

DN 93137066

TI **Substance P receptor** desensitization in the dorsal horn: possible involvement of receptor-G protein complexes.

AU Holland L N; Goldstein B D; Aronstam R S

CS Department of Pharmacology and Toxicology, Medical College of Georgia, Augusta 30912-2300.

NC GM-46408 (NIGMS)

SO BRAIN RESEARCH, (1993 Jan 8) 600 (1) 89-96.

Journal code: B5L. ISSN: 0006-8993.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199304

L28 ANSWER 19 OF 31 MEDLINE

AN 93133634 MEDLINE

DN 93133634

TI Intrathecal co-administration of substance P and NMDA augments nociceptive responses in the formalin test.

AU Mjelle-Joly N; Lund A; Berge O G; Hole K

CS Department of Physiology, University of Bergen, Norway..

SO PAIN, (1992 Nov) 51 (2) 195-8.

Journal code: OPF. ISSN: 0304-3959.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199304

L28 ANSWER 20 OF 31 MEDLINE

AN 93082439 MEDLINE

DN 93082439

TI Release of neuropeptide FF (FLFQPQRF-NH2) from rat spinal cord.

AU Zhu J; Jhamandas K; Yang H Y

CS Laboratory of Biochemical Genetics, St. Elizabethans, Washington DC 20032..

L1 ANSWER 8 OF 25 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD  
 AN 97-050629 [05] WPIDS  
 CR 94-118127 [14]; 95-082018 [11]; 96-105632 [11]; 97-051212 [05];  
 98-361762 [31]  
 DNC C97-016701  
 TI Selectively enhancing analgesic potency of bimodally-acting opioid  
 agonist  
 - by co-administrating with nalmefene, used to treat pain or opiate  
 addicts.  
 DC B05  
 IN CRAIN, S M; SHEN, K  
 PA (YESH) UNIV YESHIVA EINSTEIN COLLEGE  
 CYC 1  
 PI US 5580876 A 961203 (9705)\* 21 pp A61K031-485  
 ADT US 5580876 A CIP of US 92-947690 920921, CIP of US 93-97460 930727, CIP  
 of  
 US 94-276966 940719, US 95-552296 951103  
 FDT US 5580876 A CIP of US 5472943, CIP of US 5512578  
 PRAI US 95-552296 951103; US 92-947690 920921; US 93-97460 930727;  
 US 94-276966 940719  
 IC ICM A61K031-485

L1 ANSWER 9 OF 25 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD  
 AN 95-404082 [51] WPIDS  
 DNC C95-173559  
 TI New cyclic penta peptide derivs. contg. naphthyl alanine residue - having  
 both mu agonist and delta antagonist activities and useful as analgesics  
 which are unlikely to cause tolerance or dependence.  
 DC B04  
 IN SCHILLER, P; SCHMIDT, R  
 PA (ASTR) ASTRA AB  
 CYC 66  
 PI WO 9530694 A1 951116 (9551)\* EN 30 pp C07K014-70  
 RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG  
 W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE  
 KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NO NZ PL PT RO RU SD SE  
 SG SI SK TJ TM TT UA UG US UZ VN  
 AU 9524583 A 951129 (9609) C07K014-70  
 ZA 9503315 A 960131 (9610) 30 pp C07K000-00  
 NO 9604670 A 961105 (9705) C07K005-107  
 FI 9604443 A 961105 (9707) C07K000-00  
 EP 763062 A1 970319 (9716) EN C07K014-70  
 R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE  
 SK 9601365 A3 970604 (9733) C07K014-70  
 BR 9507620 A 970819 (9739) C07K014-70  
 JP 10500404 W 980113 (9812) 25 pp C07K007-06  
 AU 688040 B 980305 (9820) C07K005-107  
 NZ 285476 A 980427 (9823) C07K014-70  
 KR 97702881 A 970610 (9825) C07K007-54  
 US 5786447 A 980728 (9837) C07K007-00  
 ADT WO 9530694 A1 WO 95-SE462 950427; AU 9524583 A AU 95-24583 950427; ZA  
 9503315 A ZA 95-3315 950424; NO 9604670 A WO 95-SE462 950427, NO 96-4670  
 961105; FI 9604443 A WO 95-SE462 950427, FI 96-4443 961105; EP 763062 A1  
 EP 95-918807 950427, WO 95-SE462 950427; SK 9601365 A3 WO 95-SE462  
 950427,

L1 ANSWER 12 OF 25 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD  
 AN 94-183155 [22] WPIDS  
 CR 97-456219 [41]  
 DNC C94-082976  
 TI New opioid oligo peptide cpds. - having analgesic, antitussive, antidiarrhoeal and antitumour activity.  
 DC B04 C03  
 IN KIM, S H; MOREAU, J; TAYLOR, J E  
 PA (BIOM-N) BIOMEASURE INC  
 CYC 27  
 PI WO 9411018 A1 940526 (9422)\* EN 45 pp A61K037-02  
 RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE  
 W: AU CA CZ FI JP NO NZ PL RU UA  
 AU 9455943 A 940608 (9435) A61K037-02  
 CZ 9401681 A3 941215 (9508) C07K005-10  
 EP 644772 A1 950329 (9517) EN A61K037-02  
 R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE  
 JP 07503485 W 950413 (9523) C07K005-027  
 NZ 258345 A 960326 (9618) C07K005-06  
 AU 672077 B 960919 (9645) C07K005-10  
 EP 644772 A4 970129 (9722) A61K037-02  
 ADT WO 9411018 A1 WO 93-US10711 931104; AU 9455943 A AU 94-55943 931104; CZ 9401681 A3 CZ 94-1681 931104; EP 644772 A1 WO 93-US10711 931104, EP 94-901304 931104; JP 07503485 W WO 93-US10711 931104, JP 94-512244 931104;  
 NZ 258345 A NZ 93-258345 931104; AU 672077 B AU 94-55943 931104; EP 644772  
 A4 EP 94-901304  
 FDT AU 9455943 A Based on WO 9411018; EP 644772 A1 Based on WO 9411018; JP 07503485 W Based on WO 9411018; AU 672077 B Previous Publ. AU 9455943, Based on WO 9411018  
 PRAI US 92-974943 921112  
 IC ICM A61K037-02; C07K005-027; C07K005-06; C07K005-10  
 ICS C07K005-065; C07K005-08; C07K005-087; C07K007-06  
 ICA A61K038-00  
  
 L1 ANSWER 13 OF 25 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD  
 AN 94-118127 [14] WPIDS  
 CR 95-082018 [11]; 96-105632 [11]; 97-050629 [03]; 97-051212 [05]; 98-361762 [31]  
 DNN N94-092586 DNC C94-054616  
 TI Screening and trial of low- or non-addictive opioid analgesics - use in treatment of opioid abuse and severe pain, provide cure and relief without withdrawal symptoms.  
 DC B02 B04 S03  
 IN CRAIN, S M; GONG, X; MAO, H; QIN, B; SHEN, K; WANG, C Y; TRAN, M; HUANG, M; SHA, L  
 PA (HONE) HONEYWELL INC; (CRAI-I) CRAIN S M; (GONG-I) GONG X; (MAOH-I) MAO H;  
 (QINB-I) QIN B; (SHEN-I) SHEN K; (WANG-I) WANG C Y; (UNBI-N) UNITED BIOMEDICAL INC  
 CYC 20  
 PI WO 9406426 A1 940331 (9414)\* EN 72 pp A61K031-46

RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE  
 W: CA JP  
 US 5410313 A 950425 (9522) 18 pp G01S007-42  
 EP 668764 A1 950830 (9539) EN A61K031-46  
 R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE  
 JP 08504189 W 960507 (9646) 68 pp A61K031-485  
 US 5624932 A 970429 (9723) 22 pp A61K031-44  
 US 5633259 A 970527 (9727) 21 pp A61K031-44  
 DE 69317298 E 980409 (9820) G01S007-02  
 ADT WO 9406426 A1 WO 93-US8869 930917; US 5410313 A US 92-977322 921117; EP  
 668764 A1 EP 93-921686 930917, WO 93-US8869 930917; JP 08504189 W WO  
 93-US8869 930917, JP 94-508375 930917; US 5624932 A CIP of US 92-947690  
 920921, CIP of US 92-977332 921117, Cont of US 93-88503 930707, Div ex US  
 95-387679 950213, US 95-482713 950607; US 5633259 A CIP of US 92-947690  
 920921, CIP of US 92-977332 921117, Cont of US 93-88503 930707, US  
 95-387679 950213; DE 69317298 E DE 93-617298 931115, WO 93-US11051  
 931115,  
 EP 94-902252 931115  
 FDT EP 668764 A1 Based on WO 9406426; JP 08504189 W Based on WO 9406426; DE  
 69317298 E Based on EP 670047, Based on WO 9411752  
 PRAI US 93-88503 930707; US 92-947690 920921; US 92-977322 921117;  
 US 92-977332 921117; US 95-387679 950213; US 95-482713 950607  
 IC ICM A61K031-44; A61K031-46; A61K031-485; G01S007-02; G01S007-42  
 ICS A61K031-135; C07D489-12; G01N033-53; G01N033-567  
 ICA C07D489-00

SK 96-1365 950427; BR 9507620 A BR 95-7620 950427, WO 95-SE462 950427; JP 10500404 W JP 95-528880 950427, WO 95-SE462 950427; AU 688040 B AU 95-24583 950427; NZ 285476 A NZ 95-285476 950427, WO 95-SE462 950427; KR 97702881 A WO 95-SE462 950427, KR 96-706226 961105; US 5786447 A WO 95-SE462 950427, US 95-448472 950531

FDT AU 9524583 A Based on WO 9530694; EP 763062 A1 Based on WO 9530694; BR 9507620 A Based on WO 9530694; JP 10500404 W Based on WO 9530694; AU 688040 B Previous Publ. AU 9524583, Based on WO 9530694; NZ 285476 A Based on WO 9530694; KR 97702881 A Based on WO 9530694; US 5786447 A Based on WO 9530694

PRAI SE 94-1596 940506

IC ICM C07K000-00; C07K005-107; C07K007-00; C07K007-06; C07K007-54; C07K014-70

ICS A61K038-00; A61K038-07; A61K038-08; C07K001-04; C07K001-10; C07K005-06

PI

L1 ANSWER 10 OF 25 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD

AN 95-302687 [39] WPIDS

DNC C95-135498

TI Opioid peptide(s) selective and specific for the mu-opioid receptor - useful as peripheral analgesics.

DC B04

IN BROWN, W; DIMAIO, J; MARTEL, R; SCHILLER, P

PA (ASTR) ASTRA AB

CYC 63

PI WO 9522557 A1 950824 (9539)\* EN 49 pp C07K005-107

RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG

W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NL NO NZ PL PT RO RU SD SE SI SK TJ TT UA UG US UZ VN

AU 9518651 A 950904 (9549) C07K005-107

ZA 9501440 A 951227 (9605) 46 pp C07K000-00

NO 9603464 A 960820 (9645) C07K005-107

FI 9603252 A 960820 (9646) C07K000-00

EP 746567 A1 961211 (9703) EN C07K005-107

R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

CZ 9602391 A3 961211 (9706) C07K005-107

SK 9600935 A3 970507 (9731) C07K005-107

NZ 281742 A 970624 (9732) C07K005-10

JP 09509168 W 970916 (9747) 46 pp C07K005-107

BR 9506847 A 970930 (9748) C07K005-107

HU 74731 T 970228 (9748) C07K005-107

KR 97701204 A 970317 (9813) C07K005-107

MX 9603489 A1 970301 (9820) C07K005-107

AU 690648 B 980430 (9829) C07K005-107

ADT WO 9522557 A1 WO 95-SE158 950215; AU 9518651 A AU 95-18651 950215; ZA 9501440 A ZA 95-1440 950221; NO 9603464 A WO 95-SE158 950215, NO 96-3464 960820; FI 9603252 A WO 95-SE158 950215, FI 96-3252 960820; EP 746567 A1 EP 95-910838 950215, WO 95-SE158 950215; CZ 9602391 A3 CZ 96-2391 950215; SK 9600935 A3 WO 95-SE158 950215, SK 96-935 950215; NZ 281742 A NZ 95-281742 950215, WO 95-SE158 950215; JP 09509168 W JP 95-521753 950215, WO 95-SE158 950215; BR 9506847 A BR 95-6847 950215, WO 95-SE158 950215;

HU 74731 T WO 95-SE158 950215, HU 96-2281 950215; KR 97701204 A WO 95-SE158 950215, KR 96-704545 960820; MX 9603489 A1 MX 96-3489 960819; AU 690648 B AU 95-18651 950215

FDT AU 9518651 A Based on WO 9522557; EP 746567 A1 Based on WO 9522557; NZ 281742 A Based on WO 9522557; JP 09509168 W Based on WO 9522557; BR 9506847 A Based on WO 9522557; HU 74731 T Based on WO 9522557; KR 97701204 A Based on WO 9522557; AU 690648 B Previous Publ. AU 9518651, Based on WO

9522557

PRAI SE 94-1519 940503; GB 94-3263 940221; GB 94-8179 940425  
IC ICM C07K000-00; C07K005-10; C07K005-107  
ICS A61K038-00; A61K038-07

L14 ANSWER 4 OF 9 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD  
 AN 96-433831 [43] WPIDS  
 CR 94-083203 [10]; 97-099468 [09]; 98-100348 [09]  
 DNC C96-136231  
 TI Recombinant production of antimicrobial, cationic peptide - produced in bacterial host as **fusion peptide** with an anionic portion for suppressing the anti-microbial activity of the cationic peptide.  
 DC B04 D16  
 IN BROWN, M H; HANCOCK, R E W; KELLY, N; PIERS, K L  
 PA (UYBR-N) UNIV BRITISH COLUMBIA  
 CYC 21  
 PI WO 9628559 A1 960919 (9643)\* EN 157 pp C12N015-62  
 RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
 W: CA JP  
 US 5688767 A 971118 (9801) 41 pp A61K038-16  
 EP 815247 A1 980107 (9806) EN C12N015-62  
 R: AT BE CH DE DK ES FR GB GR IE IT LI NL SE  
 US 5789377 A 980804 (9838) A61K038-16  
 ADT WO 9628559 A1 WO 96-IB431 960313; US 5688767 A CIP of US 92-933492 920821,  
 CIP of US 93-110502 930820, Div ex US 95-405234 950313, US 96-614516 960313; EP 815247 A1 EP 96-911076 960313, WO 96-IB431 960313; US 5789377  
 A  
 CIP of US 92-933492 920821, CIP of US 93-110502 930820, US 95-405234 950313  
 FDT EP 815247 A1 Based on WO 9628559  
 PRAI US 95-405234 950313; US 92-933492 920821; US 93-110502 930820;  
 US 96-614516 960313  
 IC ICM A61K038-16; C12N015-62  
 ICS A61K038-10; C07K014-21; C07K014-31; C07K014-435; C07K014-46;  
 C07K014-47; C12N009-10

L14 ANSWER 5 OF 9 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD  
 AN 96-321853 [32] WPIDS  
 DNC C96-102548  
 TI New nucleic acid encoding poly sialyl transferase - useful to control metastasis, promote neurite growth etc..  
 DC B04 D16  
 IN ECKHARDT, M; FUKUDA, M; GERARDY-SCHAHN, R; NAKAYAMA, J; NAKAYAMA  
 PA (BOEF) BOEHRINGER MANNHEIM GMBH; (LJOL-N) LA JOLLA CANCER RES FOUND  
 CYC 60  
 PI WO 9620280 A1 960704 (9632)\* EN 78 pp C12N015-54  
 RW: AT BE CH DE DK ES FR GB GR IE IT KE LS LU MC MW NL OA PT SD SE SZ  
 UG  
 W: AM AU BB BG BR BY CA CN CZ FI GE HU JP KG KP KR KZ LK LT LV MD MG  
 MN NO NZ PL RO RU SI SK TJ TT UA US UZ VN  
 AU 9646870 A 960719 (9647) C12N015-54  
 US 5747326 A 980505 (9825) C12N015-00  
 AU 692355 B 980604 (9839) C12N015-54  
 EP 871743 A1 981021 (9846) EN C12N015-54  
 R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE  
 US 5849904 A 981215 (9906) C07H021-04  
 ADT WO 9620280 A1 WO 95-US16664 951221; AU 9646870 A AU 96-46870 951221; US

5747326 A US 95-503133 950717; AU 692355 B AU 96-46870 951221; EP 871743  
A1 EP 95-944508 951221, WO 95-US16664 951221; US 5849904 A CIP of WO  
94-EP4289 941222, CIP of US 95-503133 950717, US 95-576775 951221  
FDT AU 9646870 A Based on WO 9620280; AU 692355 B Previous Publ. AU 9646870,  
Based on WO 9620280; EP 871743 A1 Based on WO 9620280  
PRAI EP 95-116387 951018; WO 94-EP4289 941222; US 95-503133 950717  
IC ICM C07H021-04; C12N015-00; C12N015-54  
ICS A61K048-00; C07C229-22; C07K016-40; C08B037-00; C12N001-21;  
C12N005-06; C12N009-10; C12N015-09; C12N015-11; C12N015-62;  
C12N015-63; C12P007-58; C12P019-18; C12P019-26; C12P021-00;  
C12Q001-48; C12Q001-68



L1 ANSWER 17 OF 25 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD  
 AN 92-150895 [18] WPIDS  
 DNC C92-069923  
 TI High yield prodn. of peptide(s) with physiological activity - by  
 expressing fused protein in transformant microorganism having peptide  
 linked to carrier via di peptide, then cleaving with protease.  
 DC B04 D16  
 IN KUWATA, M; YAMAMOTO, H; YAMASHITA, K  
 PA (MDRE-N) M & D RES CO LTD; (MDRE-N) MD RES KK; (MDRE-N) M&D RES CO LTD  
 CYC 9  
 PI WO 9206211 A 920416 (9218)\* JA 53 pp  
 RW: CH DE FR GB SE  
 W: CA US  
 JP 04148694 A 920521 (9228) 23 pp C12P021-06  
 EP 591524 A1 940413 (9415) EN 30 pp C12P021-06  
 R: CH DE FR GB LI SE  
 EP 591524 A4 940803 (9532)  
 JP 07108232 B2 951122 (9551) 19 pp C12P021-02  
 US 5506120 A 960409 (9620) 27 pp C12N015-62  
 ADT WO 9206211 A WO 91-JP239 910225; JP 04148694 A JP 90-271880 901009; EP  
 591524 A1 EP 91-904654 910225, WO 91-JP239 910225; EP 591524 A4 EP  
 91-904654 ; JP 07108232 B2 JP 90-271880 901009; US 5506120 A Cont  
 of  
 WO 91-JP239 910225, Cont of US 92-853754 920605, US 94-243082 940516  
 FDT EP 591524 A1 Based on WO 9206211; JP 07108232 B2 Based on JP 04148694  
 PRAI JP 90-271880 901009  
 IC ICM C12P021-02; C12P021-06  
 ICS C12N015-09; C12R001-12  
 ICA C07K013-00; C12N015-62  
 I

L1 ANSWER 15 OF 25 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD  
 AN 93-339751 [43] WPIDS  
 DNC C93-150682  
 TI Opioid peptide contg. linear hydrophobic or aromatic aminoacid - useful  
 for treating and controlling pain, anaesthesia, emotion, respiration,  
 body temp., digestive function, etc..  
 DC B04  
 PA (NISS) NISSHIN FLOUR MILLING CO  
 CYC 1  
 PI JP 05247089 A 930924 (9343)\* 6 pp C07K007-06  
 ADT JP 05247089 A JP 92-80353 920303  
 PRAI JP 92-80353 920303  
 IC ICM C07K007-06  
 ICS A61K037-02  
 ICI C07K099:00

L1 ANSWER 16 OF 25 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD  
 AN 92-227221 [28] WPIDS  
 TI New opioid tetra-, penta- and hexa- peptide(s) - obtd. from wheat protein  
 hydrolysate, useful as narcotics and analgesics etc..  
 DC B04 C03 D13 D16  
 IN FUKUDOME, S I; YOSHIKAWA, M; FUKUDOME, S  
 PA (NISS) NISSHIN FLOUR MILLING CO  
 CYC 6  
 PI DE 4142157 A 920702 (9228)\* 12 pp C07K007-06  
 GB 2251435 A 920708 (9228) 45 pp C07K001-12  
 FR 2671086 A1 920703 (9236) 41 pp C07K007-06  
 JP 05086094 A 930406 (9318) 25 pp C07K007-06  
 US 5268360 A 931207 (9350) 11 pp A61K037-00  
 US 5338668 A 940816 (9432) 11 pp A61K037-00  
 GB 2251435 B 950503 (9521) C07K001-12  
 ADT DE 4142157 A DE 91-4142157 911220; GB 2251435 A GB 91-26329 911211; FR  
 2671086 A1 FR 91-16021 911223; JP 05086094 A JP 91-171879 910618; US  
 5268360 A US 91-801388 911202; US 5338668 A Div ex US 91-801388 911202,  
 US 93-61065 930514; GB 2251435 B GB 91-26329 911211  
 FDT US 5338668 A Div ex US 5268360  
 PRAI JP 90-418333 901227; JP 91-53745 910227; JP 91-171879 910618  
 IC ICM C07K001-12; C07K007-06  
 ICS A61K037-02; A61K037-18; C07K005-10; C07K014-415; C12P021-06  
 ICA A23K001-16; A23L001-03; C12N009-54; C12N009-62; C12N009-76

of cell-mediated **gene therapy** using primary **myoblasts** can now be broadly applied to mouse models of human muscle and non-muscle diseases.

L9 ANSWER 51 OF 88 MEDLINE  
AN 95285149 MEDLINE  
DN 95285149  
TI **Myoblast-based gene therapies.**  
AU Partridge T A; Davies K E  
CS MRC Clinical Sciences Centre, Royal Postgraduate Medical School, Hammersmith Hospital, London, UK..  
SO BRITISH MEDICAL BULLETIN, (1995 Jan) 51 (1) 123-37. Ref: 73  
Journal code: B4G. ISSN: 0007-1420.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, ACADEMIC)  
LA English  
EM 199509  
AB Recent identification of the genetic causes of several neuromuscular disorders has aroused interest in **gene therapy** in skeletal muscle. The genetic constitution of skeletal muscle can be altered by a number of means. **Myoblasts** can be used to introduce new genes, endogenous or exogenous, into muscle fibres during growth and repair. DNA expression-plasmids can be directly transfected into a small proportion of muscle fibres, showing persistent expression despite their lack of genomic integration. Recombinant replication deficient adenoviruses are efficient vectors into **myoblasts** and developing muscle fibres; again, the introduced constructs show long-term episomal persistence and expression. By contrast, recombinant replication deficient retroviruses efficiently introduce constructs into the genomes of dividing **myoblasts** which subsequently fuse into muscle fibres. None of the available methods provides a practical solution for therapy of genetic muscle diseases but might be useful for inducing synthesis of therapeutic non-muscle proteins by skeletal muscle.

L9 ANSWER 46 OF 88 MEDLINE  
AN 96032811 MEDLINE  
DN 96032811  
TI The fate of **myoblasts** following transplantation into mature muscle.  
AU Rando T A; Pavlath G K; Blau H M  
CS Department of Molecular Pharmacology, Stanford University Medical Center, California 94305-5332, USA..  
NC HD18179 (NICHD)  
SO EXPERIMENTAL CELL RESEARCH, (1995 Oct) 220 (2) 383-9.  
Journal code: EPB. ISSN: 0014-4827.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; Cancer Journals  
EM 199601  
AB Cell transplantation has potential benefits for tissue replacement in the the enhancement of tissue regeneration and as cell-mediated **gene therapy** for systemic diseases. The transplantation of **myoblasts** into skeletal muscle also allows gene transfer into cells of the host since **myoblasts** fuse with host fibers thereby forming hybrid myofibers. The success of myoblast transplantation can be determined by a variety of measures, such as the percentage of **myoblasts** that fuse, the number of hybrid myofibers formed, or the level of transgene expression. Each measure is a reflection of the fate of

the transplanted cells. In order to compare different measures of transplantation efficacy, we followed the fate of transplanted **myoblasts** expressing the marker enzyme beta-galactosidase (beta-gal) in two different assays. Two weeks after transplantation, the number of hybrid myofibers was determined histochemically, whereas transgene (beta-gal) expression was measured biochemically. To control for variabilities of transplantation among different animals, we obtained both measurements from each muscle by using alternate cryosections in the two assays. Within each individual muscle, both hybrid fiber number and beta-gal expression were maximal at the site of implantation and diminished in parallel with distance from the site. However, for determining the success of transplantation among groups of muscles, these two measures of efficacy yielded discordant results: the transplants with the highest number of hybrid fibers were not the transplants with the greatest beta-gal activity. Such discrepancies are likely due to regional variations at the transplantation site that arise when cells are introduced into a solid tissue. These results demonstrate the importance of multiple measures of cell fate and transplantation efficacy for studies of cell transplantation and for the application of such studies to cell therapy and cell-mediated **gene therapy**.

L9 ANSWER 44 OF 88 MEDLINE

AN 96050959 MEDLINE

DN 96050959

TI Cultured human **myoblasts** and **myotubes** show markedly different transducibility by replication-defective adenovirus recombinants.

AU Acsadi G; Jani A; Huard J; Blaschuk K; Massie B; Holland P; Lochmuller H; Karpati G

CS Montreal Neurological Institute, McGill University, Quebec, Canada..

SO GENE THERAPY, (1994 Sep) 1 (5) 338-40.

Journal code: CCE. ISSN: 0969-7128.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199602

AB Human adenovirus (AV) is a favored vector for delivery of therapeutic genes into certain target cells, such as skeletal muscle cells for **gene therapy**. Here we show that replication-defective (E1 + E3 deleted) human type 5 adenovirus (AV) recombinants containing a reporter gene insert (RSV-luciferase or RSV-Lux) can very efficiently transduce cultured human **myoblasts**. However, transduction efficiency is about one order of magnitude less in cultured **myotubes** 16 days postfusion. The high transduction of **myoblasts** by AV-RSV-Lux could be effectively blocked by an arginine-glycine-asparagine (RGD) oligopeptide that serves as a ligand

for the natural internalization receptor of AV. The normalized level of beta 3/beta 5-integrin, the main component of the internalization receptor for AV is about three times as abundant in **myoblasts** than in **myotubes**. This could contribute, among other things, to the relatively high susceptibility of **myoblasts** to AV infection and AV-mediated gene transduction.

L44 ANSWER 23 OF 129 MEDLINE  
AN 97001970 MEDLINE  
DN 97001970  
TI Opioid involvement in electromyographic (EMG) responses induced by  
injection of inflammatory irritant into deep neck tissues.  
AU Hu J W; Tatourian I; Vernon H  
CS Faculty of Dentistry, University of Toronto, Ontario, Canada..  
jhu@dental.utoronto.ca  
SO SOMATOSENSORY AND MOTOR RESEARCH, (1996) 13 (2) 139-46.  
Journal code: ZZZ. ISSN: 0899-0220.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199703  
EW 199703

L52 ANSWER 96 OF 103 CAPLUS COPYRIGHT 1999 ACS  
 AN 1993:464938 CAPLUS  
 DN 119:64938  
 TI Myogenic vector systems and their use in **gene therapy**  
 IN Schwartz, Robert J.; Demayo, Franco J.; O'Malley, Bert W.  
 PA Baylor College of Medicine, USA  
 SO PCT Int. Appl., 56 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9309236	A1	19930513	WO 92-US9353	19921103
	W: AU, BG, CA, CS, FI, HU, JP, NO, PL, RO, RU, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
	US 5298422	A	19940329	US 91-789919	19911106
	AU 9331246	A1	19930607	AU 93-31246	19921103
	AU 660751	B2	19950706		
	EP 635060	A1	19950125	EP 92-925044	19921103
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, SE				
	JP 07500967	T2	19950202	JP 92-508631	19921103
PRAI	US 91-789919		19911106		
	WO 9				

L52 ANSWER 89 OF 103 CAPLUS COPYRIGHT 1999 ACS  
AN 1994:671828 CAPLUS  
DN 121:271828  
TI Transduction, expression, and secretion of human glucocerebrosidase by  
murine **myoblasts**  
AU Bansal, Vijaya; Mowery-Rushton, Patricia; Lucht, Lorrie; Li, Juan;  
Bahnson, Alfred; Watkins, Simon C.; Barranger, John A.  
CS Graduate School Public Health, University Pittsburgh, Pittsburgh, PA,  
15261, USA  
SO Ann. N. Y. Acad. Sci. (1994), 716(GENE THERAPY FOR NEOPLASTIC DISEASES),  
307-20  
CODEN: ANYAA9; ISSN: 0077-8923  
DT Journal  
LA

L52 ANSWER 81 OF 103 CAPLUS COPYRIGHT 1999 ACS  
AN 1995:481265· CAPLUS  
DN 122:229910  
TI Myoblast-based **gene therapies**  
AU Partridge, T A; Davies, K E  
CS Royal Postgraduate Medical School, Hammersmith Hospital, London, UK  
SO Br. Med. Bull. (1995), 51(1), 123-37  
CODEN: BMBUAQ; ISSN: 0007-1420  
DT Journal; General Review  
LA



L59 ANSWER 80 OF 82 CAPLUS COPYRIGHT 1999 ACS

AN 1984:401601 CAPLUS

DN 101:1601

TI Tripeptides acting on **opioid receptors** in rat colon

AU Moritoki, Hideki; Takei, Masao; Kotani, Masahiro; Kiso, Yoshiaki; Ishida, Yukio; Endoh, Kouichi

CS Fac. Pharm. Sci., Univ. Tokushima, Tokushima, 770, Japan

SO Eur. J. Pharmacol. (1984), 100(1), 29-39

CODEN: EJPHAZ; ISSN: 0014-2999

DT Journal

LA English

AB The tripeptides SD-34 [82155-53-1] and SD-25 [77702-17-1] induced atropine-, guanethidine-, antihistaminics-resistant but naloxone-sensitive

contractions of isolated rat distal colon. They appeared to act on an **opioid receptor**, probably of the  $\mu$  subtype, distinct from those for methionine enkephalin and morphine, because the  $pA_2$  values of naloxone for the **peptides** were similar to those for  $\mu$ -agonists but different from those for methionine enkephalin and morphine, and because the **peptides** caused contractions of colon that had been desensitized to morphine. Mr 2266, a supposed  $\kappa$ -antagonist inhibited the actions of the **peptides**, ethylketocyclazocine, and dynorphin at concns. much lower than those inhibiting the actions of methionine enkephalin and morphine. Thus,

these

**peptides** seem to act on the  $\mu$ - and/or  $\kappa$  receptors. The actions of the tripeptides were inhibited by methysergide and methylergometrine, but not by the 5-HT<sub>2</sub> antagonist ketanserin, and were not affected by 5-HT or **substance P** autodesensitization. Thus, their actions do not seem to involve 5-HT, histamine, ACh, or **substance P**. It seems likely that the tripeptides, through **opioid receptors**, directly activate the muscle, or remove some inhibitory modulation of myogenic activity, thus causing contractions.

L59 ANSWER 82 OF 82 CAPLUS COPYRIGHT 1999 ACS

AN 1980:631432 CAPLUS

DN 93:231432

TI Analgesic and other activities of **substance P** and fragments

AU Frederickson, Robert C. A.; Gesellchen, Paul D.

CS Lilly Res. Lab., Eli Lilly and Co., Indianapolis, IN, 46285, USA

SO Int. Brain Res. Organ. Monogr. Ser. (1980), 7(Neuropept. Neural Transm.), 111-20

CODEN: IBRSZD; ISSN: 0361-0462

DT Journal

LA English

AB Intracerebroventricular administration of **substance P**

(SP) [33507-63-0] (1-10 ng) to mice produced a slight but significant analgesic effect which was antagonized by naloxone. Neither SP nor any

of

the 9 C-terminal fragments tested demonstrated any agonist or antagonist activity on **opioid receptors** in mouse vas deferens

prepn. However, they did induce contraction of the quiescent tissue presumably by activation of the SP receptors. In the mouse hot plate test, SP had a greater analgesic effect than any of the fragments. The hexapeptide [pGlu6]-SP6-11 [61123-13-5] had a greater analgesic activity than the hepta- or octapeptide; the tetra- and pentapeptide were inactive and the acylated pentapeptide [AcPhe7]-SP7-11 [71890-50-1] was hyperalgesic. SP in a dose which alone had no effect produced hyperalgesia when administered in the presence of naloxone (to block the action of released endogenous opioid peptides) and at the same dose produced marked analgesia in the presence of baclofen (to block the postsynaptic excitatory action of SP). How these 2 actions are mediated remains unknown.

L59 ANSWER 60 OF 82 CAPLUS COPYRIGHT 1999 ACS

AN 1990:418087 CAPLUS

DN 113:18087

TI Morphine and opioid peptides selectively inhibit the noncholinergically mediated neurogenic contraction of guinea pig isolated bronchial muscle

AU Kamikawa, Yuichiro; Shimo, Yasuo

CS Sch. Med., Dokkyo Univ., Mibu, 321-02, Japan

SO J. Pharm. Pharmacol. (1990), 42(3), 214-16

CODEN: JPPMAB; ISSN: 0022-3573

DT Journal

LA English

AB The actions of morphine and opioid peptides were examd. on the responses evoked by elec. field stimulation or by acetylcholine (ACh) and substance P (SP) in guinea pig bronchial strip chain. Elec. field stimulation evoked a biphasic contraction, consisting of a cholinergically mediated fast contraction followed by a noncholinergically

mediated slow contraction. Morphine and opioid peptides caused a concn.-dependent inhibition in the height of the noncholinergic contraction. The order of inhibitory activity was BW443C > dynorphin > morphine > .beta.-endorphin > leucine-enkephalin > methionine-enkephalin. Cholinergically mediated contractions were less potently inhibited by these opioids. Submaximal contractions of bronchial muscle evoked by exogenous ACh (2 .mu.M) or SP (0-2 .mu.M) were not inhibited by morphine (100 .mu.M) or opioid peptides (3-10 .mu.M), rather, they were augmented. Apparently, in guinea pig isolated bronchial muscle, morphine and opioid peptides can selectively inhibit excitatory noncholinergic neurotransmission via prejunctional opioid receptors.

✓ L59 ANSWER 57 OF 82 CAPLUS COPYRIGHT 1999 ACS

AN 1991:492887 CAPLUS

DN 115:92887

TI Pseudopeptide analogs of substance P and leucine enkephalinamide containing the .psi.(methyleneoxy) modification: synthesis

and biological activity

AU Roubini, Eli; Laufer, Ralph; Gilon, Chaim; Selinger, Zvi; Roques, Bernard P.; Chorev, Michael

CS Dep. Pharm. Chem., Biol. Chem. Org. Chem., Hebrew Univ., Jerusalem, 91120, Israel

SO J. Med. Chem. (1991), 34(8), 2430-8

CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

OS CJACS

AB The isosteric methyleneoxy .psi.(CH2O) function was employed as a novel peptide bond surrogate and incorporated into sequences of two

neuropeptides, **substance P** (SP) and enkephalin. Pseudopeptide analogs [pGlu6,Phe8.psi.(CH2O)Gly9]SP6-11 (I), [Tyr1.psi.(CH2O)Gly2,Leu5]enkephalinamide (II), and [Gly2.psi.(CH2O)Gly3,Leu5]enkephalinamide (III) were synthesized using conventional coupling methods in soln. I was a potent agonist of SP as compared to the parent **peptide** [pGlu6]SP6-11 (IV) in stimulating contraction of the isolated guinea pig ileum (GPI). I was more potent on the neuronal than on the muscular tachykinin receptors in the GPI than IV. In the rat was deferens assay, I was 10-fold more potent than the parent **peptide** and 20-fold less potent than eledoisin. Enkephalin analog III had low biol. activity when tested in the elec. induced GPI and was inactive in the mouse vas deferens (MVD) assay. In the rat brain membrane (RBM) binding assay, III had low affinity for both the .mu. and .delta. binding sites. In contrast, II was a potent enkephalin agonist, being equipotent to [D-Ala2,Leu5]enkephalin amide (DALE) in the GPI assay. In the MVD, II showed a substantially reduced activity, being about 10-fold less potent than DALE. In the RBM binding assay, II showed high affinity for both

the

.mu. and .delta. binding sites with increased selectivity for the .delta. sites. The contribution of the modified **peptide** bonds in the mode of interaction of SP and enkephalin at their corresponding receptors is discussed.

L59 ANSWER 24 OF 82 CAPLUS COPYRIGHT 1999 ACS

AN 1996:609014 CAPLUS

DN 125:318260

TI .delta.-**Opioid receptor** modulation of the release of **substance P**-like immunoreactivity in the dorsal horn of the rat following mechanical or thermal noxious stimulation

AU Zachariou, Venetia; Goldstein, Barry D.

CS Department of Pharmacology and Toxicology, Medical College of Georgia, Augusta, GA, 30912-7605, USA

SO Brain Res. (1996), 736(1,2), 305-314

CODEN: BRREAP; ISSN: 0006-8993

DT Journal

LA English

AB The present study was undertaken to investigate the effects of the opioid **peptide** Met-enkephalin (met-enk) on the release of **substance P**-like immunoreactivity (SPLI) in the lumbar dorsal horn during the application of a noxious mech. or thermal stimulus to the ipsilateral hind paw and lower limb of the rat. A push-pull cannula was introduced to the lumbar dorsal horn in non-anesthetized decerebrate/spinal transected rats. The dorsal horn was perfused with artificial CSF and the collected perfusates were assayed for SPLI using RIA. A noxious mech. or thermal stimulus was applied to different areas of the ipsilateral hind paw and lower limb. Met-enk (500 nM) applied to the dorsal horn through the perfusate reduced the basal release of SPLI

by

29% and prevented the increase in the release of SPLI evoked by the noxious mech. or thermal stimulus. The effect of met-enk was blocked by the selective .delta.-**opioid receptor** antagonist naltrindole (500 nM). Naltrindole (NTD) alone elicited a 75% increase in the basal release of SPLI. These data show that met-enk inhibits the thermally or mech. evoked release of SPLI in the dorsal horn by

activating

the delta **opioid receptors**. These receptors are also involved in the tonic spinal regulation of the release of SPLI.

L59 ANSWER 25 OF 82 CAPLUS COPYRIGHT 1999 ACS

AN 1996:367573 CAPLUS

DN 125:49714

TI **Substance P**-induced respiratory excitation is blunted by .delta.-receptor specific opioids in the rat medulla oblongata

AU Chen, Z.; Hedner, J.; Hedner, T.  
CS Dep. Pharmacology, Univ. Goeteborg, Goeteborg, Swed.  
SO Acta Physiol. Scand. (1996), 157(2), 165-173  
CODEN: APSCAX; ISSN: 0001-6772

DT Journal  
LA English

AB The effects of **substance P** (SP) and the naturally occurring met-enkephalin and the synthetic  $\mu$ -specific opioid agonist, DAGO (Tyr-D-Ala-Gly-N-Methyl-Phe-Gly-ol) and the  $\delta$ -specific opioid agonist DADL (Tyr-D-Ala-Gly-Phe-D-Leu) on basal ventilation were investigated in halothane-anesthetized rats. Local injections of SP (0.75-1.5 nmol) in the ventrolateral medulla oblongata (VLM), e.g.

nucleus

paragigantocellularis, and nucleus reticularis lateralis increased ventilation because of an elevation of tidal vol. Met-enkephalin induced a short-lasting ventilatory depression mainly because of a depression of tidal vol. Activation of  **$\delta$ -opioid receptors** in the VLM by local application of DADL and DAGO, resp., induced ventilatory depression, which was later in onset and more long-lasting. Local administration of met-enkephalin into the VLM also produced a

long-lasting

inhibition of the SP-induced ventilatory excitation. A similar blockade of the SP-induced excitatory ventilatory response could be elicited by DADL but not by DAGO. This antagonistic effect was attenuated by local application of the  **$\delta$ -opioid receptor** antagonist ICI 154,129. We conclude that the naturally occurring met-enkephalin as well as synthetic  $\mu$ - and  $\delta$ -specific enkephalin analogs (DAGO and DADL, resp.) in VLM depress basal ventilation by an effect on inspiratory drive. There is a functional antagonism between activation of  **$\delta$ -opioid receptors** and SP receptors into the VLM in respect to respiratory regulation.

L59 ANSWER 16 OF 82 CAPLUS COPYRIGHT 1999 ACS

AN 1997:376503 CAPLUS

DN 127:90828

TI Antinociceptive involvement of **substance P** in the spinal cord of mice: dose effects of **substance P** on the behavior elicited by intrathecally administered NMDA

AU Masuyama, Takashi; Shimizu, Takao

CS Department of Anesthesiology and Critical Care Medicine, Faculty of Medicine, Kagoshima University, Kagoshima, 890, Japan

SO Brain Res. (1997), 759(2), 241-246

CODEN: BRREAP; ISSN: 0006-8993

.PB Elsevier

DT Journal

LA English

AB The functional interaction between **substance P** (SP) and N-methyl-D-aspartate (NMDA) was studied to clarify the diversity of the roles of SP in nociceptive processes at the spinal level in mice. Behavioral responses elicited by intrathecal co-administration of NMDA (0.25 nmol) with various doses of SP (0.3-12 pmol) were obsd. for 1 min. The high dose of SP (12 pmol) potentiated NMDA-induced responses, which consisted of caudally directed licking and biting, while the low dose of SP (1 pmol) significantly reduced the responses by 40% compared to

control

mice administered NMDA alone. The antinociceptive effect of the low dose of SP was negated by co-administration of the **opioid receptor** antagonist naloxone. Furthermore, the antinociception produced by SP was present in mice pre-treated with systemic administration of capsaicin during the neonatal period. These results suggest that one of the roles SP plays at the spinal level is an involvement in antinociception. The activities of excitatory dorsal horn neurons are considered to be inhibited by endogenous opioid

peptides released from inhibitory dorsal horn neurons directly stimulated by SP.

L59 ANSWER 12 OF 82 CAPLUS COPYRIGHT 1999 ACS

AN 1997:669864 CAPLUS

DN 127:314741

TI Spinal analgesic actions of the new endogenous opioid peptides endomorphin-1 and -2

AU Stone, Laura S.; Fairbanks, Carolyn A.; Laughlin, Tinna M.; Nguyen, H. Oanh; Bushy, Tina M.; Wessendorf, Martin W.; Wilcox, George L.

CS Graduate Program in Neuroscience, University of Minnesota, Minneapolis, MN, 55455, USA

SO NeuroReport (1997), 8(14), 3131-3135

CODEN: NERPEZ; ISSN: 0959-4965

PB Rapid Science Publishers

DT Journal

LA English

AB Two highly-selective  $\mu$ -opioid receptor agonists, endomorphin-1 and -2, were recently purified from bovine brain and are postulated to be endogenous  $\mu$ -opioid receptor ligands. We sought to det. the effects of these ligands at the spinal level in mice. Endomorphin-1 and -2 produced short acting, naloxone-sensitive antinociception in the tail flick test and inhibited the behavior elicited by intrathecally injected substance P. Both endomorphin-1 and -2 were anti-allodynic in the dynorphin-induced allodynia model. Although acute tolerance against both endomorphins developed rapidly, endomorphin-1 required a longer pretreatment time before tolerance was obsd. We conclude that the endomorphins are potent spinal antinociceptive and anti-allodynic agents, and that they or related compds. may prove therapeutically useful as spinal analgesics.

L59 ANSWER 2 OF 82 CAPLUS COPYRIGHT 1999 ACS

AN 1998:798131 CAPLUS

TI Opioids affect inflammation and the immune system

AU Krajnik, Malgorzata; Finlay, Ilora G.; Zylicz, Zbigniew

CS Palliative Care Department, University of Medical Sciences, Bydgoszcz, Pol.

SO Pain Rev. (1998), 5(3), 147-154

CODEN: PAREFV; ISSN: 0968-1302

PB Arnold, Hodder Headline PLC

DT Journal

LA English

AB Neurogenic inflammation, with its assocd. hyperalgesia, is linked to release of neuropeptide mediators including substance P, calcitonin gene-related peptide and corticotrophin-releasing factor. The release of substance P may be modified by opioid receptors on afferent nerve terminals. It is known to be a major mediator of neurogenic inflammation in synovia and is implicated in lymphocyte proliferation and arthritic bone changes. However, opioids may inhibit plasma extravasation and appear to decrease substance P release. Opioid peptides are found in inflamed tissues, released early by interleukin-1 and later by a corticotrophin-releasing factor effect. Opioids appear to interact with interleukins and may act as signalling mols. between immunol. active cells. Endogenous opioids tend to stimulate and exogenous opioids tend

to

suppress the immune system; information from infections in opioid addicts suggests that this has clin. significance. Thus, the effect of opioids

in

modifying the peripheral inflammatory response indicates an analgesic potential at peripheral afferent receptors.

=> d his

(FILE 'HOME' ENTERED AT 12:28:47 ON 22 FEB 1999)

FILE 'MEDLINE' ENTERED AT 12:30:00 ON 22 FEB 1999

L1	8306 S GENE THERAPY
L2	6647 S OPIOID RECEPTOR
L3	2 S L1 AND L2
L4	693 S MYOGENIC CELLS
L5	3055 S MYOBLASTS
L6	2773 S MYOTUBES
L7	5 S (MUSCLE FIBER CELLS)
L8	5069 S L4 OR L5 OR L6 OR L7
L9	88 S L1 AND L8
L10	14365 S SUBSTANCE P
L11	1 S L10 AND L1
L12	2 S (OPIOIDE PEPTIDE)
L13	13509 S ENDORPHIN
L14	30582 S OPIOID
L15	5640 S L13 AND L14
L16	1028 S L13 AND L2
L17	1 S L1 AND L16
L18	0 S (MET SUP 5)
L19	14349 S ENKEPHALIN
L20	3 S L1 AND L19
L21	127 S L2 AND L10
L22	59 S L21 AND PEPTIDE
L23	382614 S INHIBITOR
L24	20 S L22 AND L23
L25	276107 S ANALOG
L26	310479 S (ANALOG OR ANALOGUE)
L27	212 S L26 AND L1
L28	2292 S L10 AND L26
L29	14365 S (L10 OR L28)
L30	1 S L1 AND L29
L31	2417 S (NECK MUSCLE)
L32	0 S L1 AND L31
L33	5084 S (DRUG DELIVERY)
L34	0 S L31 AND L33
L35	2122356 S DRUG
L36	0 S L34 AND L35
L37	47706 S (DRUG ADMINISTRATION)
L38	4 S L31 AND L37
L39	25 S (LEVATOR SCAPULAE MUSCLE)
L40	0 S L1 AND L39
L41	0 S L37 AND L39
L42	0 S L33 AND L39
L43	176684 S INJECTIONS
L44	129 S L31 AND L43
L45	5 S (L44 AND DRUGS)
L46	1204 S (INSULIN ADMINISTRATION)
L47	0 S L1 AND L46
L48	0 S L4 AND L46

L49 5133 S (CHONDROITIN SULFATE)  
L50 5 S L1 AND L49

FILE 'CAPLUS' ENTERED AT 14:20:20 ON 22 FEB 1999

L51 7 S L3  
L52 103 S L9  
L53 0 S L9 AND L10  
L54 0 S L12  
L55 2714 S L15  
L56 805 S L16  
L57 1 S L17  
L58 4 S L20  
L59 82 S L22  
L60 4 S L24  
L61 4 S L30  
L62 1 S L38  
L63 0 S L39  
L64 0 S L45  
L65 7 S L50

=> d 157 bib ab

L57 ANSWER 1 OF 1 CAPLUS COPYRIGHT 1999 ACS

AN 1995:318509 CAPLUS

DN 122:123543

TI Retrovirus-mediated expression of an artificial .beta.-endorphin precursor in primary fibroblasts

AU Beutler, Andreas S.; Banck, Michaela S.; Bach, Flemming W.; Gage, Fred H.;

Porreca, Frank; Bilsky, Edward J.; Yaksh, Tony L.

CS Dep. Neurosci. and Dep. Anesthesiology, Univ. Calif., San Diego, La Jolla, CA, USA

SO J. Neurochem. (1995), 64(2), 475-81

CODEN: JONRA9; ISSN: 0022-3042

DT Journal

LA English

AB Peptides are of potential interest in the field of **gene therapy** but require modification by genetic engineering to facilitate their secretion. N-terminal addn. of a signal peptide is not always sufficient to achieve this goal, as found in this study for .beta.-

**endorphin**. To overcome this problem, addn. of the pre-pro-sequence of mouse NGF to .beta.-endorphin was tested. Retrovirus-mediated expression of a hybrid construct of the pre-pro-sequence of NGF and human .beta.-endorphin in primary fibroblasts resulted in the secretion of .beta.-endorphin immunoreactivity at a rate of 620 pg/h/106 cells. Anal. of the secreted .beta.-endorphin immunoreactivity with reverse-phase HPLC, immunoassays using 3 different antibodies, and an assay for the specific displacement of [3H][D-Ala2,N-MePhe4,Gly-ol5]enkephalin from .mu.-opioid receptors suggests that the pre-pro-sequence is cleaved off from the pre-pro-sequence/.beta.-endorphin construct prior to secretion, resulting in bona fide .beta.-endorphin. Transplantation of .beta.-endorphin-secreting cells into brain, or spinal cord may provide a gene therapy approach for the treatment of chronic, opioid-sensitive pain states.

=> d 158 1-4 bib ab

L58 ANSWER 1 OF 4 CAPLUS COPYRIGHT 1999 ACS

AN 1995:810705 CAPLUS  
 DN 123:188544  
 TI Somatic **gene therapy** by direct injection of DNA  
 expression vectors into fluid spaces for cell uptake and transformation  
 IN Ledley, Fred D.; O'Malley, Bert W., Jr.  
 PA Baylor College of Medicine, USA  
 SO PCT Int. Appl., 97 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9519182	A1	19950720	WO 95-US577	19950112
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 5792751	A	19980811	US 94-184547	19940121
	AU 9516811	A1	19950801	AU 95-16811	19950112
	EP 871723	A1	19981021	EP 95-908523	19950112
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE  
 PRAI US 94-181707 19940113  
 US 94-184547 19940121  
 US 92-868061 19920413  
 US 92-912934 19920713  
 WO 95-US577 19950112

AB Somatic **gene therapy** techniques are provided for cells  
 assocd. with fluid spaces, such as follicles of the thyroid, the synovium  
 of the joint, the vitreous of the eye, and the inner or middle ear.  
 Formulated DNA expression vectors with or without formulation elements

are  
 directly injected into fluid spaces under conditions in which cells  
 assocd. with the fluid space can incorporate the formulated DNA  
 expression  
 vector. Formulated DNA expression-mediated **gene therapy**  
 allows treatment of diseases involving cells assocd. with fluid spaces.  
 CMV-.beta.-gal, CMV-CAT, and CMV-GH plasmid vectors were shown to  
 effectively transfect their target cells and express their reporter genes  
 when injected into rabbit knee joints or thyroid follicular cells.  
 Inflammatory arthritis can be treated by the expression of  
 anti-inflammatory factors by the DNA expression vectors, such as the sol.  
 form of glucocorticoid receptors.

L58 ANSWER 2 OF 4 CAPLUS COPYRIGHT 1999 ACS

AN 1995:318509 CAPLUS  
 DN 122:123543  
 TI Retrovirus-mediated expression of an artificial .beta.-endorphin  
 precursor  
 in primary fibroblasts  
 AU Beutler, Andreas S.; Banck, Michaela S.; Bach, Flemming W.; Gage, Fred  
 H.;  
 Porreca, Frank; Bilsky, Edward J.; Yaksh, Tony L.  
 CS Dep. Neurosci. and Dep. Anesthesiology, Univ. Calif., San Diego, La  
 Jolla,  
 CA, USA  
 SO J. Neurochem. (1995), 64(2), 475-81  
 CODEN: JONRA9; ISSN: 0022-3042  
 DT Journal



L19 5509 S L1 AND L2  
 L20 2640 S L19 AND L17  
 L21 644 S (PEPTIDE INHIBITOR)  
 L22 2 S L19 AND L21  
 L23 2 S L1 AND L21  
 L24 479 S (SUBSTANCE P RECEPTOR)  
 L25 0 S L24 AND L21  
 L26 70 S (SUBSTANCE P ANALOG)  
 L27 0 S L24 AND L4  
 L28 31 S L24 AND L8  
 L29 14667 S (L1 OR NK-1)  
 L30 1526195 S THERAPY  
 L31 57789 S L8 AND L30  
 L32 146 S L29 AND L31  
 L33 3720 S MYOBLAST  
 L34 93 S L33 AND L4  
 L35 293 S (PARASPINAL MUSCLE)

=> s 131 and 135

L36 18 L31 AND L35

=> d 1-18

L36 ANSWER 1 OF 18 MEDLINE  
 AN 1998369996 MEDLINE  
 DN 98369996  
 TI A randomized, double-blind, prospective pilot study of botulinum toxin injection for refractory, unilateral, cervicothoracic, paraspinal, myofascial pain syndrome.  
 AU Wheeler A H; Goolkasian P; Gretz S S  
 CS Charlotte Spine Center, North Carolina, USA.  
 SO SPINE, (1998 Aug 1) 23 (15) 1662-6; discussion 1667.  
 Journal code: UXK. ISSN: 0362-2436.  
 CY United States  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA English  
 FS Priority Journals  
 EM 199901  
 EW 19990104

L36 ANSWER 2 OF 18 MEDLINE  
 AN 1998063806 MEDLINE  
 DN 98063806  
 ✓ TI Paraspinal pyomyositis, a rare cause of severe back pain: case report and review of the literature.  
 AU Cecil M; Dimar J R 2nd  
 CS Department of Orthopaedic Surgery, University of Louisville School of Medicine, Kentucky, USA.  
 SO AMERICAN JOURNAL OF ORTHOPEDICS, (1997 Nov) 26 (11) 785-7. Ref: 8  
 Journal code: B41. ISSN: 1078-4519.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW OF REPORTED CASES)  
 LA English  
 FS Priority Journals  
 EM 199803  
 EW 19980305

L36 ANSWER 3 OF 18 MEDLINE  
 AN 97268171 MEDLINE  
 DN 97268171  
 TI Thoracic spinal fracture in a rugby league footballer.  
 AU Geffen S; Gibbs N; Geffen L  
 CS Cognitive Psychophysiology Laboratory, University of Queensland,  
 Brisbane,  
 Australia.  
 SO CLINICAL JOURNAL OF SPORT MEDICINE, (1997 Apr) 7 (2) 144-6.  
 Journal code: B9T. ISSN: 1050-642X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199708  
 EW 19970804

L36 ANSWER 4 OF 18 MEDLINE  
 AN 97107966 MEDLINE  
 DN 97107966  
 TI Design and assessment of an adaptive intermittent cervical traction  
 modality with EMG biofeedback.  
 AU Lee M Y; Wong M K; Tang F T; Chang W H; Chiou W K  
 CS Department of Mechanical Engineering, Chang Gung College of Medicine and  
 Technology, Taoyuan, Taiwan.  
 SO JOURNAL OF BIOMECHANICAL ENGINEERING, (1996 Nov) 118 (4) 597-600.  
 Journal code: K57. ISSN: 0148-0731.  
 CY United States  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA English  
 FS Priority Journals  
 EM 199705  
 EW 19970501

L36 ANSWER 5 OF 18 MEDLINE  
 AN 96022747 MEDLINE  
 DN 96022747  
 TI Traumatic focal posterior tibialis muscle denervation.  
 AU Rolle W A Jr; Herbison G J; Wapner K L; Schweitzer M E  
 CS Department of Rehabilitation Medicine, Jefferson Medical College, Thomas  
 Jefferson University, Philadelphia, Pennsylvania, USA.  
 SO FOOT AND ANKLE INTERNATIONAL, (1995 Jun) 16 (6) 363-7.  
 Journal code: BXF. ISSN: 1071-1007.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199601

L36 ANSWER 6 OF 18 MEDLINE  
 AN 95400036 MEDLINE  
 DN 95400036  
 TI Progressive paraspinal muscle atrophy presenting as  
low-back pain: case report.  
 AU Reinsel T E; Grobler L J; Meriam C  
 CS Division of Orthopedic Surgery, Ohio State University, Columbus 43210,  
 USA..  
 SO JOURNAL OF SPINAL DISORDERS, (1995 Jun) 8 (3) 249-51.  
 Journal code: BEQ. ISSN: 0895-0385.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)

LA English  
FS Priority Journals  
EM 199512

L36 ANSWER 7 OF 18 MEDLINE

AN 95216969 MEDLINE

DN 95216969

TI Prevalence and clinical features of lumbar zygapophysial joint pain: a study in an Australian population with chronic low back pain.

AU Schwarzer A C; Wang S C; Bogduk N; McNaught P J; Laurent R  
CS Faculty of Medicine, University of Newcastle, Callaghan, NSW, Australia..

SO ANNALS OF THE RHEUMATIC DISEASES, (1995 Feb) 54 (2) 100-6.  
Journal code: 62W. ISSN: 0003-4967.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199507

L36 ANSWER 8 OF 18 MEDLINE

AN 94253273 MEDLINE

DN 94253273

TI Effects of intermittent cervical traction on muscle pain. Flowmetric and electromyographic studies of the cervical paraspinal muscles.

AU Nanno M

CS Department of Orthopaedic Surgery, Nippon Medical School, Tokyo, Japan..

SO NIPPON IKA DAIGAKU ZASSHI. JOURNAL OF THE NIPPON MEDICAL SCHOOL, (1994 Apr) 61 (2) 137-47.

Journal code: HRD. ISSN: 0048-0444.

CY Japan

DT Journal; Article; (JOURNAL ARTICLE)

LA Japanese

EM 199409

L36 ANSWER 9 OF 18 MEDLINE

AN 94105810 MEDLINE

DN 94105810

TI Electromyographic power spectrum analysis of the paraspinal muscles. Long-term reliability.

AU Thompson D A; Biedermann H J

CS Department of Psychology, Queen's University, Kingston, Canada..

SO SPINE, (1993 Nov) 18 (15) 2310-3.

Journal code: UXK. ISSN: 0362-2436.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199404

L36 ANSWER 10 OF 18 MEDLINE

AN 93377133 MEDLINE

DN 93377133

TI Paraspinal muscle evoked cerebral potentials in patients with unilateral low back pain.

AU Zhu Y; Haldeman S; Starr A; Seffinger M A; Su S H

CS Department of Neurology, University of California, Irvine.

SO SPINE, (1993 Jun 15) 18 (8) 1096-102.

Journal code: UXK. ISSN: 0362-2436.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

SO ACUPUNCTURE AND ELECTRO-THERAPEUTICS RESEARCH, (1984) 9 (3) 141-50.  
Journal code: 2GR. ISSN: 0360-1293.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198505

L40 ANSWER 69 OF 73 MEDLINE  
AN 84290916 MEDLINE  
DN 84290916  
TI The omohyoideus myofascial pain syndrome: report of four patients.  
AU Rask M R  
SO JOURNAL OF CRANIO-MANDIBULAR PRACTICE, (1984 Jun-Aug) 2 (3) 256-62.  
Journal code: IH7. ISSN: 0734-5410.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Dental Journals; Dental  
EM 198412

L40 ANSWER 70 OF 73 MEDLINE  
AN 83294201 MEDLINE  
DN 83294201  
TI Differential effectiveness of EMG-feedback versus combined EMG-feedback and relaxation instructions in the treatment of tension headache.  
AU Janssen K  
SO JOURNAL OF PSYCHOSOMATIC RESEARCH, (1983) 27 (3) 243-53.  
Journal code: JUV. ISSN: 0022-3999.  
CY ENGLAND: United Kingdom  
DT (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)  
LA English  
FS Priority Journals  
EM 198312

L40 ANSWER 71 OF 73 MEDLINE  
AN 80186918 MEDLINE  
DN 80186918  
TI Lignocaine versus saline in migraine pain [letter].  
AU Tfelt-Hansen P; Olesen J; Lous I  
SO LANCET, (1980 May 24) 1 (8178) 1140.  
Journal code: LOS. ISSN: 0140-6736.  
CY ENGLAND: United Kingdom  
DT (CLINICAL TRIAL)  
(CONTROLLED CLINICAL TRIAL)  
Letter  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 198009

L40 ANSWER 72 OF 73 MEDLINE  
AN 80108620 MEDLINE  
DN 80108620  
TI Advances in the treatment of head and neck pain.  
AU Tyler G S; McNeeley H  
SO ARIZONA DENTAL JOURNAL, (1978 Sep) 24 (2) 25-6.  
Journal code: BMV. ISSN: 0004-1459.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English

modulator"; it may facilitate or inhibit nociceptive responses. Ceruletide and cholecystokinin octapeptide depress nociceptive motor responses but do not affect the nociceptive sensory response. This indicates that motor and sensory responses of the spinal nociceptive system are not rigidly linked together. With the help of appropriate drugs, it is possible to manipulate them separately.

L16 ANSWER 176 OF 182 MEDLINE

AN 83150677 MEDLINE

DN 83150677

TI Inhibition of substance P release is the key  
to successful management of oral pain.

AU Goodale D B

SO ANESTHESIA PROGRESS, (1982 Jul-Aug) 29 (4) 103-7.

Journal code: 4S4. ISSN: 0003-3006.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Dental Journals; Dental

EM 198306

=> s myoblast

1576 MYOBLAST

3070 MYOBLASTS

L33 3720 MYOBLAST

(MYOBLAST OR MYOBLASTS)

=> d his

(FILE 'HOME' ENTERED AT 12:06:01 ON 11 MAR 1999)

FILE 'MEDLINE' ENTERED AT 12:06:07 ON 11 MAR 1999

L1 14388 S (SUBSTANCE P)  
L2 914806 S (BLOCK? OR INHIBIT?)  
L3 423130 S (RECEPTOR)  
L4 8396 S (GENE THERAPY)  
L5 4498 S L1 AND L3  
L6 0 S L5 AND L4  
L7 1 S L1 AND L4  
L8 148499 S PAIN  
L9 974 S L1 AND L8  
L10 367 S L9 AND L2  
L11 0 S L4 AND L9  
L12 328 S L5 AND L9  
L13 0 S L5 AND L4  
L14 18 S L8 AND L4  
L15 0 S L14 AND L5  
L16 182 S L1 AND L2 AND L3 AND L8  
L17 261115 S PEPTIDE  
L18 1328 S L1 AND L3 AND L2 AND L17  
L19 5509 S L1 AND L2  
L20 2640 S L19 AND L17  
L21 644 S (PEPTIDE INHIBITOR)  
L22 2 S L19 AND L21  
L23 2 S L1 AND L21  
L24 479 S (SUBSTANCE P RECEPTOR)  
L25 0 S L24 AND L21  
L26 70 S (SUBSTANCE P ANALOG)  
L27 0 S L24 AND L4  
L28 31 S L24 AND L8  
L29 14667 S (L1 OR NK-1)

suppression and a subsensitivity to the pharmacological effects of the neuropeptide. The modifications in the content of Met-enkephalin and 5-HIAA are possibly compensatory changes which subserve the functionality of central cardiovascular and pain regulatory systems after the immunolesion.

L16 ANSWER 159 OF 182 MEDLINE

AN 87027545 MEDLINE

DN 87027545

TI Analgesic activities of spinal cord **substance P** antagonists implicate **substance P** as a neurotransmitter of **pain** sensation.

AU Piercey M F; Moon M W; Blinn J R; Dobry-Schreur P J

SO BRAIN RESEARCH, (1986 Oct 15) 385 (1) 74-85.

Journal code: B5L. ISSN: 0006-8993.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198702

AB **Substance P** (SP) injected into intraspinal (i.s.) spaces caused mice to vigorously scratch and bite their skins in an apparent reaction to a perceived cutaneous sensation. The scratching behavior was similar to the reciprocal hindlimb-scratching syndrome (RHS) described for intracranial (i.c.) SP injections. Radiotracer experiments, as well as potency and latency measurements, demonstrated that SP-induced scratching, whether induced by the i.c. or i.s. route, was due to SP **receptor** stimulation in the cervicothoracic cord. Similarly, biting was due to SP stimulation of the lumbosacral spinal cord. Mice coated with capsaicin, an irritant chemical, scratched and bit the coated areas in a manner similar to animals injected with i.s. SP. Standard analgesics depressed this scratching behavior elicited by topical capsaicin. Non-analgesic drugs, with the exception of amphetamine, did not

affect capsaicin-induced **pain**. It is concluded that i.s. SP induces a painful sensory experience. Some piperazinone derivatives of **substance P**'s C-terminal hexapeptide are shown to specifically antagonize the scratching induced by i.s. SP with little or no effect on motor behavior. These antagonists depressed scratching elicited by topical capsaicin and were analgesic on the hot-plate test.

It is concluded that SP is a natural neurotransmitter for **pain** and that antagonism of endogenous SP systems causes analgesia.

L16 ANSWER 169 OF 182 MEDLINE

AN 85049813 MEDLINE

DN 85049813

TI Spinal pharmacology of **pain** and its modulation.

AU Yaksh T L

SO CLINICAL NEUROSURGERY, (1983) 31 291-303.

Journal code: DF8. ISSN: 0069-4827.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198503

L16 ANSWER 161 OF 182 MEDLINE

AN 86078590 MEDLINE

DN 86078590

TI Noradrenergic inhibition of the release of **substance**

**P** from the primary afferents in the rabbit spinal dorsal horn.

AU Kuraishi Y; Hirota N; Sato Y; Kaneko S; Satoh M; Takagi H

L36 18 S L31 AND L35  
L37 75 S (LEVATOR SCAPULAE)

=> s 131 and 137

L38 4 L31 AND L37

=> d 1-4

L38 ANSWER 1 OF 4 MEDLINE  
AN 97030640 MEDLINE  
DN 97030640  
TI Transfer of the **levator scapulae**, rhomboid major, and  
rhomboid minor for paralysis of the trapezius.  
AU Bigliani L U; Compito C A; Duralde X A; Wolfe I N  
CS Shoulder Service, New York Orthopaedic Hospital, Columbia-Presbyterian  
Medical Center, New York City 10032, USA.  
SO JOURNAL OF BONE AND JOINT SURGERY. AMERICAN VOLUME, (1996 Oct) 78 (10);  
1534-40.  
Journal code: HJR. ISSN: 0021-9355.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 199701  
EW 19970104

L38 ANSWER 2 OF 4 MEDLINE  
AN 96057869 MEDLINE  
DN 96057869  
TI **Levator scapulae** transfer and fascia lata fasciodesis  
for chronic spinal accessory nerve palsy.  
AU Coessens B C; Wood M B  
CS Department of Orthopedics, Mayo Clinic, Rochester, Minnesota 55905,  
USA..  
SO JOURNAL OF RECONSTRUCTIVE MICROSURGERY, (1995 Jul) 11 (4) 277-80.  
Journal code: JVX. ISSN: 0743-684X.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199601

L38 ANSWER 3 OF 4 MEDLINE  
AN 89300440 MEDLINE  
DN 89300440  
TI Effects of the infrared laser **therapy** at treated and non-treated  
trigger points.  
AU Olavi A; Pekka R; Pertti K; Pekka P  
CS Department of Physical Medicine and Rehabilitation, University Central  
Hospital, Kuopio, Finland..  
SO ACUPUNCTURE AND ELECTRO-THERAPEUTICS RESEARCH, (1989) 14 (1) 9-14.  
Journal code: 2GR. ISSN: 0360-1293.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198910

L38 ANSWER 4 OF 4 MEDLINE  
AN 85261498 MEDLINE  
DN 85261498

L32 ANSWER 88 OF 146 MEDLINE  
 PN 93304250 MEDLINE  
 DN 93304250  
 TI **Substance P** and inflammatory pain: potential  
 of **substance P** antagonists as analgesics.  
 AU Henry J L  
 CS Department of Physiology, McGill University, Montreal, Quebec, Canada..  
 SO AGENTS AND ACTIONS. SUPPLEMENTS, (1993) 41 75-87. Ref: 66  
 Journal code: 2YH. ISSN: 0379-0363.  
 CY Switzerland  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199309  
 AB **Substance P** has been implicated in peripheral  
 inflammatory responses and recent evidence from animal models indicates  
 that **substance P** (NK-1 receptor)  
 antagonists are effective in blocking peripheral inflammatory responses  
 as  
 well as nociception (pain) associated with inflammation.  
 Evidence implicating **substance P** in nociception is  
 reviewed in this survey, along with evidence on the effects of NK  
 -1 receptor antagonists and with some comments on the usefulness  
 of such antagonists as analgesics.

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L1 14388 S (SUBSTANCE P)  
 L2 914806 S (BLOCK? OR INHIBIT?)  
 L3 423130 S (RECEPTOR)  
 L4 8396 S (GENE THERAPY)  
 L5 4498 S L1 AND L3  
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 L8 148499 S PAIN  
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 L14 18 S L8 AND L4  
 L15 0 S L14 AND L5  
 L16 182 S L1 AND L2 AND L3 AND L8  
 L17 261115 S PEPTIDE  
 L18 1328 S L1 AND L3 AND L2 AND L17  
 L19 5509 S L1 AND L2  
 L20 2640 S L19 AND L17  
 L21 644 S (PEPTIDE INHIBITOR)  
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 L24 479 S (SUBSTANCE P RECEPTOR)  
 L25 0 S L24 AND L21  
 L26 70 S (SUBSTANCE P ANALOG)  
 L27 0 S L24 AND L4  
 L28 31 S L24 AND L8  
 L29 14667 S (L1 OR NK-1)  
 L30 1526195 S THERAPY



C, both morphologically and immunocytochemically. Polymerase chain reaction analysis of RNA confirmed the presence of the dystrophin point mutation in the mdx cells and its absence in the control cells. A similar approach may be useful for the proliferation, modification, and reimplantation of autologous cells from patients with degenerative and dystrophic disorders such as Duchenne muscular dystrophy.

L9 ANSWER 83 OF 88 MEDLINE

AN 92228784 MEDLINE

DN 92228784

TI Expression of human factor IX in mice after injection of genetically modified **myoblasts**.

AU Yao S N; Kurachi K

CS Department of Human Genetics, University of Michigan Medical School, Ann Arbor 48109-0618.

NC HL38644 (NHLBI)

PO1-DK42718 (NIDDK)

NIDDK34933

+

SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1992 Apr 15) 89 (8) 3357-61.

Journal code: PV3. ISSN: 0027-8424.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 199207

AB Hemophilia B is an X chromosome-linked recessive bleeding disorder. To develop a somatic **gene therapy** for this disease, we have examined whether mouse skeletal **myoblasts** can serve as efficient vehicles for systemic delivery of recombinant factor IX. When mouse **myoblasts** (C2C12) transduced with a Moloney murine leukemia virus-based vector containing the bacterial beta-galactosidase gene were injected into mouse skeletal muscles, they fused with the existing and regenerating myofibers and continued to express beta-galactosidase. C2C12 **myoblasts** that were infected with recombinant retroviruses containing a human factor IX cDNA secreted biologically active human factor IX cDNA secreted biologically active human factor IX into the culture medium at a rate of 2.6 micrograms per 10(6) cells per day. **Myotubes** derived from these cells in culture continued to express human factor IX (0.68 micrograms/day from **myotubes** derived from 10(6) C2C12 cells). After injection of the transduced C2C12 **myoblasts** into skeletal muscles of mice, the systemic level of recombinant human factor IX was found to be as high as approximately 1 microgram/ml of serum. These results provide the

rationale

for using skeletal **myoblasts** as an efficient gene delivery vehicle in the somatic **gene therapy** for hemophilia B.

L9 ANSWER 84 OF 88 MEDLINE

AN 92073930 MEDLINE

DN 92073930

TI Systemic delivery of human growth hormone by injection of genetically engineered **myoblasts** [see comments].

CM Comment in: Science 1991 Dec 6;254(5037):1455-6

AU Dhawan J; Pan L C; Pavlath G K; Travis M A; Lanctot A M; Blau H M

CS Department of Pharmacology, Stanford University School of Medicine, CA 94305..

NC AG-09521 (NIA)

HD-18179 (NICHD)

SO SCIENCE, (1991 Dec 6) 254 (5037) 1509-12.

Journal code: UJ7. ISSN: 0036-8075.

CY United States

EM 199111

AB The ability of skeletal muscle to regenerate provides an excellent therapeutic entry, via genetic engineering, for correcting diseases of skeletal muscle and other tissues. We have used a retrovirus to transfer the cDNA for the human multidrug transporter, encoded by the MDR1 gene, into the genomes of the rat muscle cell line L6 and into primary rat myocytes. The MDR1 gene confers drug resistance to cells, and thus serves as a selectable marker in vitro. In cultured cells, the retroviral promoter-driven human MDR1 cDNA was shown to be stable in the presence or absence of drug selection or muscle cell fusion. MDR1 mRNA was synthesized, as shown by RNA blot analysis and in situ hybridization. The protein product was localized to the plasma membrane of transduced myocytes and myotubes by immunofluorescence. As a model for skeletal muscle gene therapy, transduced L6 myocytes were implanted into the tibialis anterior muscle of Wistar rats. The retroviral sequences of the human MDR1 gene and its mRNA were present in the muscles of Wistar rats 5 days, but not 12 days, after implantation, possibly because of immunorejection. On the other hand, the human MDR1 cDNA was stable in the tibialis anterior muscle of nude mice, which are incapable of immunorejection, at least 4 weeks after implantation of myocytes. Immunosuppression of Wistar rats with cyclosporine A delayed immunorejection of recombinant myocytes, and MDR1 cDNA and mRNA was detected 3-4 weeks after implantation. In situ hybridization revealed that injected recombinant myocytes remain in discrete foci in adult rodent skeletal muscle and express MDR1 mRNA for at least 30 days in nude mice and cyclosporine-treated rats.

L9 ANSWER 76 OF 88 MEDLINE

AN 93392232 MEDLINE

DN 93392232

TI Myoblasts in pattern formation and gene therapy.

AU Blau H M; Dhawan J; Pavlath G K

CS Department of Pharmacology, Stanford University School of Medicine, CA 94305-5332..

SO TRENDS IN GENETICS, (1993 Aug) 9 (8) 269-74. Ref: 51  
Journal code: WEK. ISSN: 0168-9525.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)

LA English

EM 199312

AB The tissues of a multicellular animal are composed of diverse cell types arranged in a precisely organized pattern. Features unique to muscle allow

an analysis of pattern formation and maintenance in mammals. The progeny of single cells can be taken full cycle from the animal to the culture dish and back to the animal where they fuse into mature myofibers of the host. These features not only facilitate the use of genetically

engineered

myoblasts in studies of pattern formation, but also in cell-mediated gene therapy: a novel mode of drug delivery for the treatment of muscle and nonmuscle diseases such as hemophilia, cardiac disease and cancer.

L9 ANSWER 78 OF 88 MEDLINE

AN 93066349 MEDLINE

DN 93066349

TI Gene therapy via primary myoblasts:

long-term expression of factor IX protein following transplantation in vivo.

AU Dai Y; Roman M; Naviaux R K; Verma I M  
 CS Salk Institute, Molecular Biology and Virology Laboratory, San Diego, CA  
 92186-5800.  
 NC MH183P8-05 (NIMH)  
 SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF  
 AMERICA, (1992 Nov 15) 89 (22) 10892-5.  
 Journal code: PV3. ISSN: 0027-8424.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199302  
 AB We have explored the use of primary **myoblasts** as a somatic  
 tissue for **gene therapy** of acquired and inherited  
 diseases where systemic delivery of a gene product may have therapeutic  
 effects. Mouse primary **myoblasts** were infected with  
 replication-defective retroviruses expressing canine factor IX cDNA under  
 the control of a mouse muscle creatine kinase enhancer and human  
 cytomegalovirus promoter. The infected **myoblasts** were injected  
 into the hindlegs of recipient mice and levels of secreted factor IX  
 protein were monitored in the plasma. We report sustained expression of  
 factor IX protein for over 6 months without any apparent adverse effect  
 on the recipient mice.

L9 ANSWER 70 OF 88 MEDLINE  
 AN 94227539 MEDLINE  
 DN 94227539  
 TI Cultured human muscle cells and respiratory chain deficiencies.  
 AU Herzberg N H; Bolhuis P A; van den Bogert C; Barth P G  
 CS Department of Neurology, University of Amsterdam, The Netherlands..  
 SO NEUROMUSCULAR DISORDERS, (1994 Jan) 4 (1) 3-11. Ref: 106  
 Journal code: BJS. ISSN: 0960-8966.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199408  
 AB Cultured muscle cells are useful in the study of respiratory chain  
 disorders. Muscle tissue is affected in most cases and muscle biopsies  
 are often taken for diagnostic purposes. Small samples of the biopsies can  
 provide large numbers of muscle cells. In contrast with most other cell  
 types, the muscle cells can differentiate in culture. Upon  
 differentiation, multinuclear **myotubes** are formed by fusion of  
**myoblasts** and muscle-specific proteins are synthesized in the  
**myotubes**. Muscle cells can be used for diagnostic purposes, e.g.  
 by measurement of the lactate and pyruvate synthesis, although with the  
 limitation that not each form of respiratory chain deficiency may be  
 expressed in culture. Muscle cells have been studied to obtain insight  
 into mitochondrial DNA disorders, e.g. by investigation of cells after  
 exposure to inhibitors of expression of mitochondrial DNA. Furthermore,  
 cultured muscle cells have been studied to explore the potential of new  
 therapeutic possibilities such as myoblast transfer and **gene**  
**therapy**.

L9 ANSWER 67 OF 88 MEDLINE  
 AN 94243269 MEDLINE  
 DN 94243269  
 TI Transplantation of adult-derived **myoblasts** in mice following  
 gene transfer.

Other Formats: [Citation](#) [MEDLINE](#)Links: [Related Articles](#)☐ Order this document*Proc Natl Acad Sci U S A* 1980 Sep;77(9):5525-6

## Peptide inhibitor of morphine- and beta-endorphin-induced analgesia.

Lee NM, Friedman HJ, Leybin L, Cho TM, Loh HH, Li CH

The synthetic beta-endorphin analogs with the omission of the NH2-terminal [Met]enkephalin segment [beta-endorphin-(6-31) and beta-endorphin-(20-31)] are shown to inhibit morphine- or beta-endorphin-induced analgesia in mice by the tail-flick test, whereas the synthetic NH2-terminal pentadecapeptide beta-endorphin-(1-15) has no inhibitory activity. This study raises the possibility that endogenous inhibiting peptides exist in the brain which play a role in the regulation of endorphin actions.

PMID: 6254086, UI: 81055001

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Other Formats:  Links: ☐ Order this document*Transplant Proc* 1997 Jun;29(4):2234-7

## Human gene therapy with myoblast transfer.

Law PK, Goodwin TG, Fang Q, Quinley T, Vastagh G, Hall T, Jackson T, Deering MB, Duggirala V, Larkin C, Florendo JA, Li LM, Yoo TJ, Chase N, Neel M, Krahn T, Holcomb RL

Cell Therapy Research Foundation, Memphis, Tennessee 38117, USA.

Publication Types:

- Clinical trial
- Randomized controlled trial

PMID: 9193606, UI: 97336859

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Other Formats: [Citation](#) [MEDLINE](#)Links: [Related Articles](#)☐ Order this document*Hum Gene Ther* 1997 Mar 1;8(4):371-80

## Viral gene delivery to skeletal muscle: insights on maturation-dependent loss of fiber infectivity for adenovirus and herpes simplex type 1 viral vectors.

Feero WG, Rosenblatt JD, Huard J, Watkins SC, Epperly M, Clemens PR, Kochanek S, Glorioso JC, Partridge TA, Hoffman EP

Department of Human Genetics, University of Pittsburgh School of Medicine, PA 15261, USA.

The mechanisms causing age-dependent loss of muscle fiber infectivity observed in vivo for both adenoviral (Ad) and herpes simplex virus type 1 (HSV-1) gene delivery vectors remain poorly understood. Here we investigate the possible bases for this phenomenon using the novel application of enzymatically isolated, viable, single muscle fibers. We show that maturation-dependent loss of fiber infectivity is recapitulated in single fibers, and, thus, is not solely due to host immune response. Using localized irradiation of muscle in vivo, we show data suggesting that Ad infectivity of differentiated myofibers depends, at least in part, on myoblasts to mediate fiber transduction. On the other hand, infection of single fibers by HSV-1 is not affected by irradiation. Using confocal microscopy, we show that the basal lamina of myogenic cells efficiently infected by HSV-1 is structurally less organized than that of fibers resistant to infection by HSV-1. As well, we show that single myofibers isolated from adult, basal lamina-defective mice (merosin-deficient, *dy/dy*) are at least 10-fold more susceptible to infection by HSV-1 than are myofibers isolated from control mice. Together, these observations support the hypothesis that the basal lamina acts as a physical barrier to HSV-1 infection of mature muscle.

PMID: 9054512, UI: 97207019

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Other Formats: [Citation](#) [MEDLINE](#)Links: [Related Articles](#)☐ Order this document*Life Sci* 1988;43(18):1419-31

## Substance P antagonists and analgesia: a review of the hypothesis.

Vaught JL

Janssen Research Foundation, Spring House, PA 19477.

This review focused entirely on the hypothesis that a substance P/neurokinin antagonist should have, and the experimental evidence examining whether they do have, analgesic/antinociceptive properties. Such a hypothesis is reasonable considering the wealth of evidence implicating substance P in the nociceptive process and the demonstration that antibodies to substance P produce or potentiate antinociception. However, despite the availability of several putative antagonists, their pharmacological purity, specificity and selectivity are questionable. Thus, the investigator may not have, as yet, the appropriate tool drug with which to work. Much of the information concerning these points is generated utilizing in vitro (referring to isolated tissue preparations) bioassay tests which may not adequately reflect nor predict their pharmacology in the CNS. Differences in species responsiveness further complicate experimental design and interpretation. Apart from these factors, the choice of test or tests becomes an important consideration. What test, if any, adequately and appropriately reflects the endogenous physiological activity of substance P in nociception and predicts clinically useful activity of an antagonist? Several different models have been described and I have emphasized that conclusions based on a single model should be interpreted with caution. If the ultimate intent of the study is to further define the role of substance P in nociception, then most of the models discussed are adequate. However, if the intent is to demonstrate that a substance P/neurokinin antagonist should have therapeutically useful analgesic activity, it is incumbent on the investigator to demonstrate that, in their model, substance P release is a primary event, the resultant analgesia correlates to the occupancy of the neurokinin receptor by antagonist (ultimately important for all conclusions) and that the model adequately reflects activity of known analgesics in clinical use (validation of the model). In conclusion, given the complexities and contradictions of existing information, the hypothesis that a substance P/neurokinin antagonist should have analgesic/antinociceptive properties remains to be proven.

### Publication Types:

- Review
- Review, tutorial

PMID: 2460712, UI: 89038955

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☐ Order this document*Biochem Biophys Res Commun* 1981 Dec 31;103(4):1318-21**Analgesic effect of antagonists of substance P.**

Lembeck F, Folkers K, Donnerer J

PMID: 6174127, UI: 82134893

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Other Formats: [Citation](#) [MEDLINE](#)Links: [Related Articles](#)☐ Order this document*Science* 1990 Aug 10;249(4969):625

## Substance P causes pain--but also heals.

Skerrett PJ

Publication Types:

- News

PMID: 1696396, UI: 90341789

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RD120.7 T68

*Transplant Proc* 1994 Dec;26(6):3417-8**Myoblast injection method regulates cell distribution and fusion.**

Law PK, Li H, Chen M, Fang Q, Goodwin T

Cell Therapy Research Foundation, Memphis, Tennessee 38117.

PMID: 7998199, UI: 95090821

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Other Formats: [Citation](#) [MEDLINE](#)Links: [Related Articles](#)☐ Order this document*Cell Transplant* 1992;1(2-3):235-44

## Feasibility, safety, and efficacy of myoblast transfer therapy on Duchenne muscular dystrophy boys.

Law PK, Goodwin TG, Fang Q, Duggirala V, Larkin C, Florendo JA, Kirby DS, Deering MB, Li HJ, Chen M, et al

Cell Therapy Research Foundation, Memphis, TN 38117.

Five billion normal myoblasts were injected into each of 21 Duchenne muscular dystrophy (DMD) boys aged 6-14 yr to assess the feasibility, safety, and efficacy of the Phase II myoblast transfer therapy (MTT). The Phase II study was designed to strengthen muscles of both lower limbs. Forty-eight intramuscular injections transferred the myoblasts into 22 major muscles at  $55.6 \times 10^6/\text{mL}$  in 10 min under general anesthesia. Eleven boys had received 8 million myoblasts each 1 yr ago in the Phase I MTT. In the Phase II study, eight of them had their myoblasts subcultured from reserves frozen 1 yr ago. The donor myoblasts for each of the remaining boys were cultured from satellite cells derived from a 1-g muscle biopsy of a normal male who might or might not be histocompatible with the recipient. The immunosuppressant cyclosporine (Cy) is being administered to recipients for 6 mo after MTT to facilitate donor cell survival. There was no evidence of an adverse reaction to MTT or Cy as determined by serial laboratory evaluations including electrolytes, creatinine, and urea. Early objective functional tests using the KinCom Robotic Dynamometer were conducted on 13 subjects aged 6 to 13 before MTT and at 3 mo after MTT. Of the 69 muscle groups (knee extensors, knee flexors, plantar flexors) tested for isometric force generation in these subjects, 43% showed mean increase of  $41.3\% \pm 5.9$  SEM, 38% showed no change, and 19% showed continuous force reduction of  $23.4\% \pm 3.1$  SEM. The remaining subjects await the 3-mo post-MTT evaluation. The results indicate that 1) MTT is safe; 2) MTT increases muscle strength in DMD: 81% of the muscles tested showed either increase in strength or did not show continuous loss of strength; 3) more than 5 billion myoblasts can be cultured from 1 g normal muscle biopsy, providing unprecedented numbers of cells for MTT; 4) myoblasts, frozen over 1 yr, retain the ability to proliferate from 10 million to 5 billion, and to form normal myofibers; 5) injections of 5 billion myoblasts have not provoked any immunological rejection symptoms in the Phase II subjects, 11 of whom received 8 million myoblasts in the Phase I MTT a year ago; 6) it is safe to perform multiple injections of myoblasts into lower limb muscles without formation of emboli; and 7) donor cell rejection by the recipient can be prevented with Cy when properly managed.

### Publication Types:

- Clinical trial
- Clinical trial, phase ii
- Multicenter study

PMID: 1344295, UI: 94199187

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QP 89.C45

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*Cell Transplant* 1993 Nov-Dec;2(6):485-505

## Cell transplantation as an experimental treatment for Duchenne muscular dystrophy.

Law PK, Goodwin TG, Fang Q, Deering MB, Duggirala V, Larkin C, Florendo JA, Kirby DS, Li HJ, Chen M, et al

Cell Therapy Research Foundation, Memphis, TN 38117.

The feasibility, safety, and efficacy of myoblast transfer therapy (MIT) were assessed in an experimental lower body treatment (LBT) involving 32 Duchenne muscular dystrophy (DMD) boys aged 6-14 yr, half of whom were nonambulatory. Through 48 injections, five billion ( $55.6 \times 10^6$ /mL) normal myoblasts were transferred into 22 major muscles in both lower limbs, in 10 min with the subject under general anesthesia. Ten subjects received myoblasts cultured from satellite cells derived from 1-g fresh muscle biopsies of normal males aged 9-21 yr. Donor myoblasts for the remaining 22 boys were subcultured from reserves frozen 1 mo-1.5 yr ago. Only four donors were known to have identical histocompatibility with their recipients. All subjects took oral doses of the immunosuppressant cyclosporine (Cy), beginning at 2 days before MTT and lasting for 6 mo after MTT to facilitate donor cell survival. There was no evidence of an adverse reaction to MTT or Cy as determined by serial laboratory evaluations including electrolytes, creatinine, and urea. Objective functional tests using the KinCom Robotic Dynamometer measured the maximum isometric contractile forces of the ankle plantar flexors (AF), knee flexors (KF), and knee extensors (KE) before MTT and at 3, 6, and 9 mo after MTT. The AF, being distal muscles and less degenerative than the KE and the KF, showed no decrease in mean contractile force 3 mo after MTT, and progressive increases in force at 6 and 9 mo after MTT. At 9 mo after MTT, 60% of the 60 AF examined showed a mean increase of 50% in force; 28% showed no change; and only 12% showed a mean decrease in force of 29% when compared to the function of the same muscles before MTT. The KF, being proximal muscles and more degenerative, showed no change in function at 9 mo after MTT. The KE, being proximal and anti-gravitational, were most degenerative before MTT. They showed no statistically significant change in force at 3 mo after MTT but showed decreases at 6 and 9 mo after MTT. At 9 mo after MTT, 23% of the 60 KE examined showed a mean increase of 65% in force; 22% showed no change; and 55% showed a mean decrease of 24% in force. When results of all muscle groups (AF, KF, KE) were pooled, there was no change in force at 3, 6, or 9 mo after MTT vs. before MTT according to the Wilcoxon signed rank test.

### Publication Types:

- Clinical trial
- Clinical trial, phase ii

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PMID: 8167934, UI: 94221387

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## Neurokinin receptors antagonists: old and new.

Jukic D, Rouissi N, Laprise R, Boussougou M, Regoli D

Department of Pharmacology, Medical School, University of Sherbrooke, Quebec, Canada.

Four neurokinin antagonists of different size have been used to counteract the myotropic effects of substance P, neurokinin A and neurokinin B in isolated organs containing a single receptor type (monoreceptor systems). These are: the dog carotid artery, the rabbit jugular and cava veins and the guinea pig ileum (NK-1), the rabbit pulmonary artery (NK-2) and the rat portal vein (NK-3). Undeca and octapeptides containing 2 D-Trp residues in their sequences were slightly more active on the NK-1, than on the NK-2 and NK-3 receptors and showed little selectivity. In contrast, compound AcThr-D.Trp(For)-Phe.NMe Bz was found to be as good an antagonist as the larger compounds and showed some selectivity for the NK-1 receptors. When tested against kinins or angiotensin, all compounds were found to be inactive, suggesting that they are specific for neurokinins. The present results show that NK-1 receptor antagonism can be obtained with compounds of different size, including tripeptides and nonpeptides.

PMID: 1719324, UI: 92048125

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## Specific agonists for neurokinin B receptors.

Drapeau G, d'Orleans-Juste P, Dion S, Rhaleb NE, Regoli D

A series of analogues of the partial sequence NKB-(4-10) (H-Asp-Phe-Phe-Val-Gly-Leu-Met.NH<sub>2</sub>) was prepared in an attempt to identify selective agonists for the neurokinin B receptor type. The compounds were tested in the dog carotid artery, the rabbit pulmonary artery and the rat portal vein to evaluate their affinity for the receptors of substance P, neurokinin A and neurokinin B respectively. It has been shown that the replacement of Val7 with MePhe increased significantly the affinity of NKB-(4-10) for the neurokinin B receptor and conferred marked selectivity. [MePhe7]NKB-(4-10) was practically inactive as stimulant of the receptor for NKA and was a weak agonist on the receptor for SP. Such significant changes in the pharmacological spectrum of [MePhe7]NKB-(4-10) cannot be attributed to protection from metabolism and appear to be due to changes in the peptide conformation.

PMID: 3038572, UI: 87276176

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Other Formats: [Citation](#) [MEDLINE](#)Links: [Related Articles](#)☐ Order this document*Int J Pept Protein Res* 1991 Mar;37(3):180-4

## Synthesis and biological activity of substance P C-terminal hexapeptide and heptapeptide analogues.

Stavropoulos G, Karagiannis K, Cordopatis P, Halle D, Gilon C, Bar-Akiva G, Selinger Z, Chorev M

Department of Chemistry, University of Patras, Greece.

The analogues [Glu(OBzl)11]SP6-11 and [Glu(OBzl)11]SP5-11 of the C-terminal hexapeptide and heptapeptide of Substance P have been synthesized by conventional solution methods. In each analogue the SCH3 group of Met11 is replaced by the COOCH<sub>2</sub>C<sub>6</sub>H<sub>5</sub> group. The in vitro activity of both analogues has been determined on three biological preparations: guinea pig ileum (GPI), rat vas deferens (RVD), and rat portal vein (RPV). The selectivity for the different receptors has been studied by utilizing atropine-treated guinea pig ileum (GPI + At). The results showed that both analogues are mainly active on GPI through the NK-1 receptor and that both analogues are equipotent to Substance P.

PMID: 1714423, UI: 91331716

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Other Formats:  Links: *Polonis*☐ Order this document*Peptides* 1995;16(5):933-8

## Production of bioactive enkephalin from the nonendocrine cell lines COS-7, NIH3T3, Ltk-, and C2C12.

Takahashi K, Fujita T, Takeuchi T

Department of Molecular Medicine, Gunma University, Maebashi, Japan.

Enkephalin is synthesized from proenkephalin in neuroendocrine cells. For the attempt to induce nonneuroendocrine origin cells to produce enkephalin, we used a mammalian expression vector for fusion peptides, pMEproCT beta, in which a fused peptide is designed to be cleaved by a yeast Kex2-like endoprotease furin. Met-Enkephalin was expressed in four nonneuroendocrine cell lines: COS-7, C2C12, Ltk-, and NIH3T3. The four cell lines produced a marked amount of Met-enkephalin, which appeared as a single peak on reverse-phase HPLC. Because transplantation of adrenal medullary cells to the subarachnoid space has been used to alleviate terminal cancer pain, and enkephalin appears to play a central role in relieving pain, this enkephalin expression vector may be useful for direct enkephalin expression in pericancerous tissues.

PMID: 7479338, UI: 96082677

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